NEW EQUIPMENT DIGEST

A Penton Publication

August, 1957

Volume 22—Number 8

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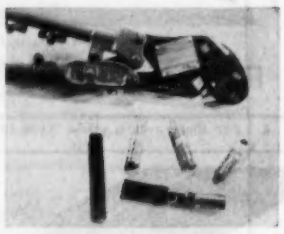
CHECK AND PASS ALONG

✓	NAME	See No.

Use Inquiry Slips—Pages 4 and 100

EQUIPMENT • MATERIALS • PROCESSES • DESIGNS • APPLICATIONS • LITERATURE

CABLE CONNECTORS
for aluminum and copper conductors



Line of high conductivity aluminum cable connectors has a hot tin coating to prevent electrolysis when used to splice aluminum and copper conductors. Line consists of compression type one and two-hole lugs and two-way connectors in sizes from No. 8 AWG to 1000 mcm. Smaller sizes are color-keyed to a die in the TBM 5 hand tool. Larger sizes are installed with a hydraulic tool, also color-keyed. Made by **Thomas & Betts Co.**, 24 Butler St., Elizabeth 1, N. J.

▲ For more details circle **NED-1 H7** on enclosed inquiry slip ▲

ADJUSTABLE LIGHTING UNITS
used on Bulldog Trol-E-Duct

Spring tensioned adjustable lighting units for use on Bulldog Trol-E-Duct can be attached at any point along the duct without fasteners. They are wired and are installed with a twisting motion. Four shade designs and single or double nonshade devices are available. Each adjusts to any position. Made by **Swivelier Co.**, Dept. 137, 43 34th St., Brooklyn 32, N. Y.

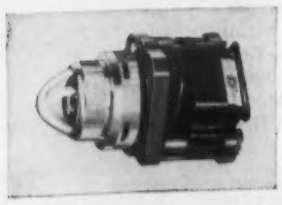
▲ For more details circle **NED-2 H7** on enclosed inquiry slip ▲

WIDE ANGLE SPRAY NOZZLE
for processing and quenching use

Spray angle of these full cone center jet spray nozzles for chemical processing, quenching and other industrial applications is 120 to 140 degrees. They have removable multivane centers for uniform distribution and maximum atomization. Standard nozzles are brass, cast iron, steel or stainless steel, but special nozzles can be made of any machinable material to suit application. Made by **Spray Engineering Co.**, 114 Central St., Somerville 45, Mass.

▲ For more details circle **NED-3 H7** on enclosed inquiry slip ▲

PILOT LIGHT
brilliant oil-tight type



Clear and any of five bright colors are available in this oil-tight pilot light with a brilliantly illuminated glass cap. It resists chemicals and abrasion. Where breakage is possible, interchangeable caps of plastic in the same colors can be used. Made by **Square D Co.**, 4045 N. Richards St., Milwaukee 12, Wis.

▲ For more details circle **NED-4 H7** on enclosed inquiry slip ▲

TANTALUM CAPACITORS
offered in sub-subminiature sizes

Series TW tantalum wire electrolytic capacitors in S and T sizes measure 3/16 and 5/32-in. long by 5/64-in. in diameter, respectively. Six sizes provide a capacitance range of 0.1 to 60 microfarads. Tan-O-Mite capacitors are also available insulated with a 0.002-in. thick Mylar sleeve for use in tight, confined locations where metal parts of different potential could possibly touch the capacitor as a result of shock or vibration. Made by **Ohmite Mfg. Co.**, 3629 Howard St., Skokie, Ill.

▲ For more details circle **NED-5 H7** on enclosed inquiry slip ▲

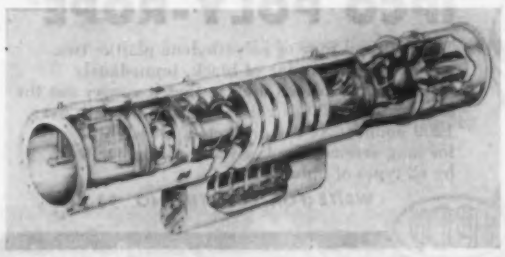
HIGH SPEED CAMERA
and motion analysis projector

Both mechanical and electrical data are recorded on the same film by this Fastax - WF - 17 combination high speed motion picture and oscillographic camera. Useful for short duration studies, it takes 100-ft daylight loading spools and has speed ranges from 150 to 8000 pictures per second. Camera can be used for either function separately. Analysis of subjects filmed by high speed motion picture cameras can be made by using a 16-mm motion analysis projector which projects films without flicker as slowly as 2 frames per second. Normal speed of 16 frames per second, frame-by-frame or still projections are also possible. Frame-by-frame film advance can be remotely controlled at the screen. Built-in frame counter enables single frame or sequence to be identified and duration determined. Made by **Wollensak Optical Co.**, Dept. MC, 850 Hudson Ave., Rochester 21, N. Y.

▲ For more details circle **NED-6 H7** on enclosed inquiry slip ▲

DUST COLLECTORS
handle up to 64,000 cfm

Over 99 per cent of all 5-micron and larger dust particles are collected by the Microdyne cylindrically shaped wet type dust collector. Line of standard



units has capacities from 2500 to 64,000 cfm. Custom units can be ordered. Units are installed as part of the duct and can be built of stainless steel. Made by **Joy Mfg. Co.**, 300 Oliver Bldg., Pittsburgh 22, Pa.

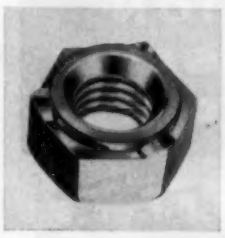
▲ For more details circle **NED-7 H7** on enclosed inquiry slip ▲

DIAL THERMOMETER
case rotates to readable position

Stem of the model 1035 dial thermometer can be placed at any angle and its case rotated to any readable position without affecting accuracy. It has a 3½-in. dial, ¼-in. bulb, ½-in. NPT fitting and fits all bimetallic wells. Stem is unaffected by bending. Direct drive Bourdon coil, external calibration for zero setting, stainless steel case and accuracy within one scale division are features. Made by **Palmer Thermometers, Inc.**, 2523 Norwood Ave., Cincinnati 12, O.

▲ For more details circle **NED-8 H7** on enclosed inquiry slip ▲

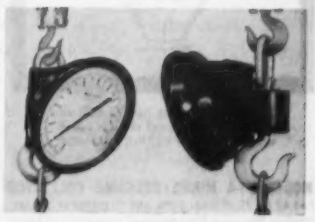
WELD NUTS
in pilot and recessed types



Assembly operations can be simplified by use of projection type pilot and recessed weld nuts. Pilot type locates itself in holes punched in the subassembly and prevents weld-spatter deposit on the threads. Recessed type has a recess around the hole to eliminate clogging of the nut by weld flow or spatter. Optional Two-Way lock in the middle of the nut holds the bolt when it goes only part way through the nut. Made by **MacLean-Fogg Lock Nut Co.**, 5547 N. Wolcott Ave., Chicago 40, Ill.

▲ For more details circle **NED-9 H7** on enclosed inquiry slip ▲

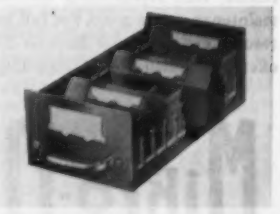
CRANE SCALES
two low headroom models



Headroom requirement of two heavy duty Hydroway crane scales is only 14½ in. Available for weighing loads up to 6000 and 10,000 lb, they have a 12-in. diameter dial set at a 20-degree angle for easy high-level reading. Tuf-lex safety glass protects the dial surface. Both models have tare adjusting knobs and locks for obtaining net load readings. Maximum tare adjustment is 20 per cent of dial capacity. Made by **Hydroway Scales, Inc.**, 31288 Stephenson Highway, Royal Oak, Mich.

▲ For more details circle **NED-10 H7** on enclosed inquiry slip ▲

STEEL DRAWERS
notches hold dividers in place



Sides of improved Equipto steel drawers are embossed to engage notches in the cross dividers, thus locking them in place. This feature also keeps tiny parts separated, yet permits easy removal of the divider. Drawers also have embossed runners on the bottom for ease of operation. Made by **Aurora Equipment Co.**, Equipto Div., 690 Prairie St., Aurora, Ill.

▲ For more details circle **NED-11 H7** on enclosed inquiry slip ▲

Standard Zagar Gearless Drillheads

DRILL ANY NUMBER OF HOLES IN ANY PATTERN

Write for Manual N-8

Drill a maximum number of holes in one pass—in any material. Holes can be as close as twice drill diameter. Zagar gearless drillheads are built as a complete unit or may be adapted to any standard drill press. Send us your part drawing and we will submit our quotation.

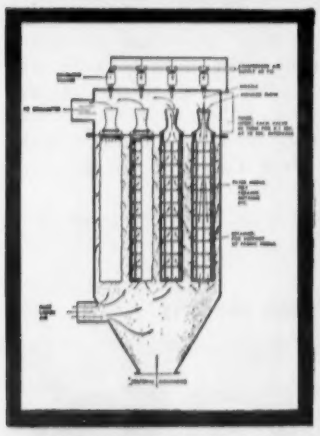
ZAGAR INC., 23880 Lakeland Blvd., Cleveland 23, O.

Zagar TOOLS FOR INDUSTRY and SPECIAL MACHINERY

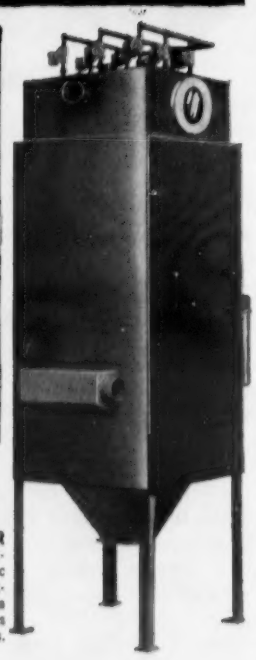
▲ For more details circle NED-12 H7 on enclosed inquiry slip ▲

Announcing... the first major advance in dust collection in more than a decade

ALL-NEW
JET-ACTION MIKRO-PULSAIRE COLLECTOR!



Schematic showing flow of dust and air, and arrangement of filter cylinders in MIKRO-PULSAIRE Collector.



MODEL 9-4 MIKRO-PULSAIRE COLLECTOR has 42 sq. ft. of filter area, and operates at approximately the same filter ratios as conventional fabric type dust collectors. Handles 400-600 cfm of dust-laden air. MODEL 48-6 has 340 sq. ft. of filter area for capacities from 2000-5000 cfm. Other units available for intermediate and larger capacities.

● Introducing a radically new method of continuous *jet-action* filter cleaning, the MIKRO-PULSAIRE is the first collector unit to offer highest efficiency and *true economy* in operation! With no internal moving parts, the MIKRO-PULSAIRE Collector is a completely simplified unit, yet capable of cleaning and filtering a dust-laden air stream at constant pressure and greatest volume efficiencies! All the mechanical cleaning mechanisms with their gears, cams, chains, etc., representing the most costly factors in collector maintenance, are gone! For full information, available sizes, test results, etc., write for Bulletin 52A. In addition, we will gladly offer recommendations regarding your specific requirements.

*Patents applied for

Mikro-D PULVERIZING MACHINERY DIVISION

Metals Disintegrating Company, Inc. 28 Chatham Rd., Summit, New Jersey

MANUFACTURERS OF PULVERIZING, AIR CONVEYING AND DUST COLLECTING EQUIPMENT

▲ For more details circle NED-13 H7 on enclosed inquiry slip ▲

Industry's Billboard

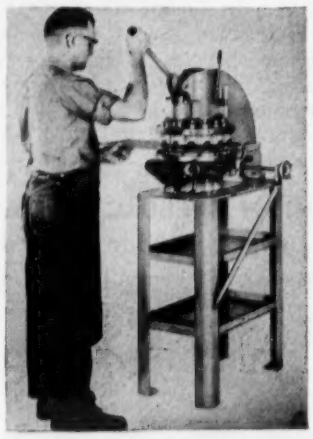
New products are the life blood of industry. Without them, no industry can prosper in today's competitive market. Without them, production cannot keep pace with ever-increasing overhead and labor costs. To progress, a company must constantly develop new products or improve its established lines. It must also replace obsolete equipment and methods with new products and processes that are developed by other alert companies. More than anything else, this accounts for the tremendous expansion of today's economy and our present prosperity.

Where does NEW EQUIPMENT DIGEST fit into this picture? It's the billboard for all that's new for industry. It's the market place for cost-saving industrial equipment, materials, processes and methods. It offers solutions to production, maintenance, engineering and design problems. It keeps alert management informed of important trends in industrial equipment.

More than 10,000 new distribution has been added to our circulation, which now totals over 80,000 copies monthly to more than 43,800 industrial plants throughout the United States. We welcome these new readers.

A. N. Gregg
EDITOR

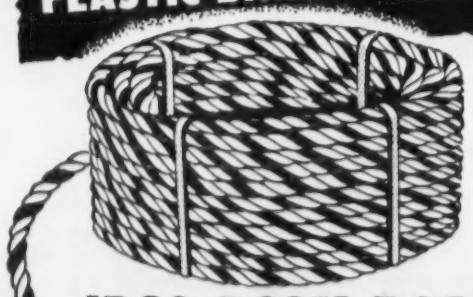
TURRET PUNCH PRESS
pierces and blanks sheet metal



Holes from 1/16 to 2 in. can be pierced and blanked in the 4-ton, 12-station Di-Acro hand operated turret punch press. It has micrometer type back and side gages. Punch and die clearance as small as 0.002-in. permits punching holes in thin material without distortion or burr. Choice of six different clearances is offered. Stripper plates are standard for each station. Selection of round, square, oval, rectangular and notching punches and dies is available. Press will also punch fiberboard, Masonite, asbestos, gasket material, cork, leather, plastics, screen and mesh. A 2-in. hole can be punched in 16-gage mild sheet steel. Made by **O'Neil-Irwin Mfg. Co.**, 582 Eighth Ave., Lake City, Minn.

▲ For more details circle NED-14 H7 on enclosed inquiry slip ▲

HIGH VISIBILITY PLASTIC BARRIER ROPE



IPCO POLY-ROPE®

Triple strand rope of polyethylene plastic; two strands of yellow, one of black. Immediately identifies a restricted area in that it carries out the standard CAUTION colors. Tensile strength over 1200 pounds. No sag or stretch. Durability for long service life. Used and recommended by all types of industry.

WRITE FOR BULLETIN NO. 93

IPCO Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY

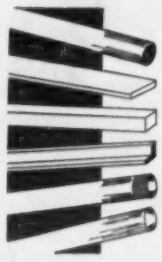
2807 N. FOURTH STREET • PHILADELPHIA 33, PA.

▲ For more details circle NED-15 H7 on enclosed inquiry slip ▲

1 MAN + 1 BENDER

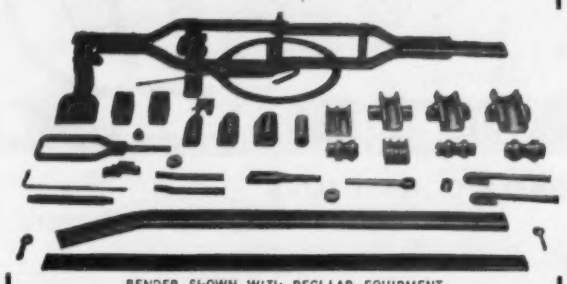
- Wrenchless, ready to use.
- Practical, quickly set up.
- Adaptable, replaces special equipment.
- Versatile, 141 different dies available.
- Dependable, a must for maintenance, limited production.
- Invaluable, optional equipment makes jobs easier.

BENDS THESE:



ROUNDS
FLATS
SQUARES
ANGLE IRON
PIPE
TUBING & CONDUIT

HOSSFELD UNIVERSAL® IRON BENDER



BENDER SHOWN WITH REGULAR EQUIPMENT

FREE: WRITE FOR BULLETIN **HOSSFELD MFG. CO.** 425 W. THIRD STREET, WINONA, MINNESOTA

▲ For more details circle NED-16 H7 on enclosed inquiry slip ▲

There's a Browning GRIPBELT for every purpose!

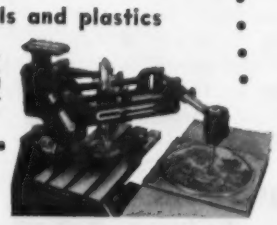
No other source offers such a wide selection of V-belts . . . from FHP to steel cable belts, including versatile Griplink and Griproll, and unique new Poly-V. These combine with Browning's variety of sheaves to form the most complete V-drive line. For every power transmission need, contact your Browning distributor. He will serve you promptly, efficiently. *Write for free catalog GC101, showing whole line.*

Browning MANUFACTURING COMPANY MAYSVILLE, KENTUCKY

▲ For more details circle NED-17 H7 on enclosed inquiry slip ▲

how to get
faithful 3-dimensional reproduction
in steel, other metals and plastics

Use the LOW COST precision-built Preis Panto 3D-5 Engraving Machine. Does both 2 and 3 dimensional engraving effortlessly.



- Reversible spindle for enlarging or reducing from a model, die or sample
- Precision ball bearings throughout
- Reduction ratio range—1.6:1 to 7:1
- Four spindle speeds—7,000 to 18,000 RPM
- Micrometer adjustment collar
- Provided complete with floor stand and work tables

TRADE MARK PANTO

Write for complete details and prices. For immediate attention write directly to manufacturer below. Ask for nearest representative.

H. P. PREIS ENGRAVING MACHINE CO.
649 U.S. Route 22, Hillside, N. J.

▲ For more details circle NED-18 H7 on enclosed inquiry slip ▲

NEW! DISCOVERY! SAVES PLUMBING BILLS

★CLEANS INSTANTLY

Chicago — August 1st — Factories, Machine Shops, Offices including Home Owners are constantly having trouble with clogged-up pipes which proves expensive in Costly Plumbing Bills—

But now—using Water Impact and Air Pressure, here is a new unit called the **Plumber's Flushing Gun,** which cleans all lines up to 100 ft. It will open any number of bends in pipe. Yet anyone can operate this new gun, which triggers easily.

TOILETS, URINALS, SINKS, and FLOOR DRAINS clogged with paper, grease, rags, sand, and other debris can be cleared with one or more shots from the gun, **saving the owner, the Gun's price the first time it is used.** This new Flushing Gun may be used on any ¼ to 6 inch waste pipe including Sink Drains, Floor Drains, Hot Water Pipes, Drinking Fountains, Septic Tanks, and Urinals. Obstructions melt away INSTANTLY when struck by the hammer like blow of this new unit.

AMAZINGLY EFFECTIVE

Hose attachment feeds water thru gun while air is released causing chain reaction in pipe cleaning the most stubborn stoppage.

This new Plumber's Flushing Gun is offered on a 30 Day Free Trial to prove its value. **BUT MOST IMPORTANT IS THIS**—What is this Tool worth to your Factory, Building, Machine Shop or in your own Home in **Costly Plumbing Bills Saved.** For your own good—Fill coupon right now—No agent will call—Obey that urge, mail now or write postcard. (Chicago Phone Kildare 5-1702)

MILLER SEWER EQUIPMENT, INC. 4638 N. Central Ave., Chicago 30, Ill.

Please send FREE BOOKLET on Flushing Gun, I am not obligated.

NAME _____

FIRM _____

STREET _____ CITY _____ STATE _____

▲ For more details circle **NED-19 H7** on enclosed inquiry slip ▲

CENTRAL

VALVES

FOR ORIGINAL EQUIPMENT

WRITE FOR CATALOG V-56

Describes a wide variety of valves for hundreds of uses for air, water, oil and steam. A collection of some very interesting valves.

THE CENTRAL BRASS MFG. CO.

2950 East 55th Street, Cleveland, Ohio

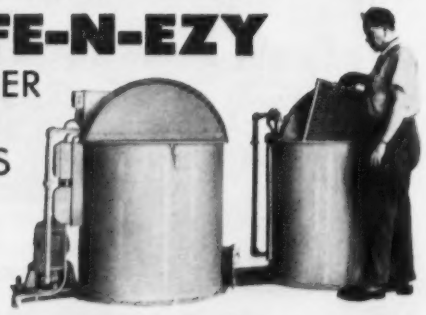
▲ For more details circle **NED-20 H7** on enclosed inquiry slip ▲

FASTER WAY TO OIL FILTERS

Stack 'em in... around they go, bathed and oiled evenly by centrifugal action in the

SAFE-N-EZY

WASHER
OILER
TWINS



One man can wash and oil 480-640 filters per 8-hour shift... automatically. This rate keeps your inventory low. Precise controls apply exact amount of oil recommended by the manufacturer... so important in air control systems, especially in precision instrument plants.

Proven on dozens of Class 1 railroads, many industrial plants.

PAXTON-MITCHELL company 27th and Martha St., Omaha, Nebraska

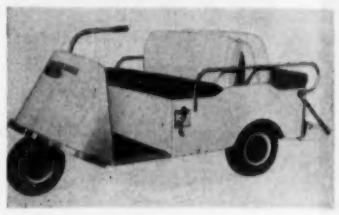
▲ For more details circle **NED-21 H7** on enclosed inquiry slip ▲

SATURABLE REACTORS
outputs range from 0.3 to 500 kva

Transformer types of saturable reactors are suited for stepless control of electrically heated equipment, reduced voltage in alternating current motor starting circuits, and loading reactors for test boards. Line ranges in output from 0.3 to 500 kva and includes units for manual or automatic control of power to a load. Reactors provide a small voltage drop at full saturation and permit 90 per cent of line voltage to be applied to the load. They are offered in an enclosed case with removable panel for installation and wiring or open for mounting in a control board. A 6-kva unit for panel mounting is shown. Made by **Hevi-Duty Electric Co.,** Box 563, Milwaukee 1, Wis.

▲ For more details circle **NED-22 H7** on enclosed inquiry slip ▲

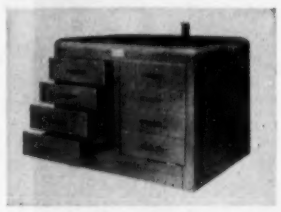
ELECTRIC PERSONNEL CAR
two and four-passenger models



Four-passenger personnel carrier and two-passenger ½-ton pick-up carrier are two Champ electric car models available for indoor or outdoor use. They have a low center of gravity, oversize tires and a 24-v motor driving both rear wheels through a differential. Power is ample for climbing steep ramps when fully loaded. Each is equipped with 200-ampere-hour battery and has foot accelerator, brake, forward-reverse switch and tiller bar for steering. Made by **Worthington Mower Co.,** 122 N. Second St., Stroudsburg, Pa.

▲ For more details circle **NED-23 H7** on enclosed inquiry slip ▲

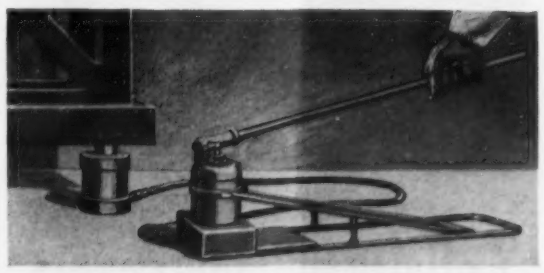
PORTABLE BENCH OVEN
has 8 drawers, reaches 325° F



Eight drawers in this portable model TD bench oven allow different materials to be processed at the same time. Oven is practical for parts or materials that require preheating, drying or baking in adjustable temperatures to 325° F. The 2400-w unit weighs only 138 lb and plugs into 110-v ac outlet. Damper-controlled forced air circulation by electric fan is available. Oven measures 30 x 25 x 24 in. on the outside. Expanded metal drawers measure 23 x 11½ x 2 in. Aircell Asbestos insulation is used. Made by **Grieve-Hendry Co.,** 1408 W. Carroll Ave., Chicago 7, Ill.

▲ For more details circle **NED-24 H7** on enclosed inquiry slip ▲

This hand hydraulic jack gets into really small places



Consists of:

- Hydraulic ram, 8-ft. tube, hand pump, 27½-in. steel lever.
- Moves 30-tons 2-ins. in any direction.
- Closed it is 4½"-ins. high, weighs 38 lbs.
- "Lo-Hite" is the name (No. 30-H-4.5).

Ask for bulletin AD-32-N.

Duff-Norton Company

P. O. Box 1889 · Pittsburgh 30, Pa.
Toronto 6, Ontario

▲ For more details circle **NED-25 H7** on enclosed inquiry slip ▲

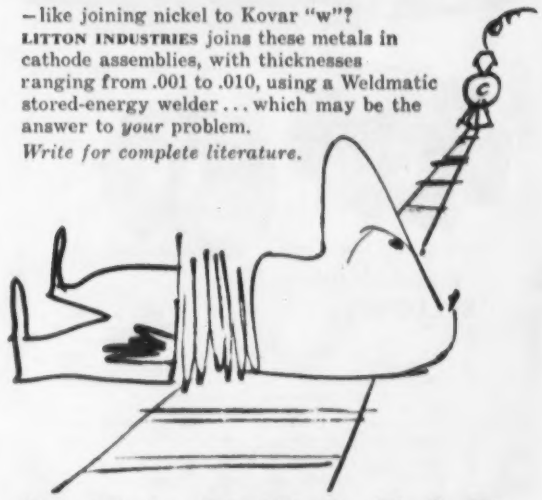
#1 IN A SERIES

TIED UP

by that precision metal-joining problem?

—like joining nickel to Kovar "w"? **LITTON INDUSTRIES** joins these metals in cathode assemblies, with thicknesses ranging from .001 to .010, using a Weldmatic stored-energy welder... which may be the answer to *your* problem.

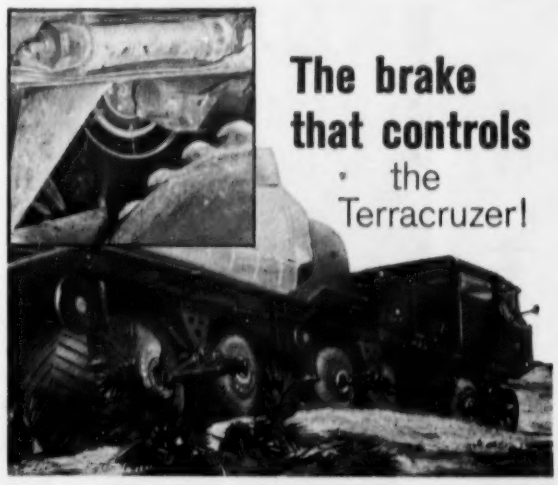
Write for complete literature.



WELDMATIC

division of unitek corporation
271 North Halstead Avenue • Pasadena, California
sales engineering representatives in principal cities

▲ For more details circle **NED-26 H7** on enclosed inquiry slip ▲



The brake that controls the Terracruzer!

Another tough operation solved by the Custom-Designed Goodyear Industrial Disc Brake

PROBLEM: To provide sure braking for the huge Air Force Terracruzer—vehicle utilizing the unique Terra-Tire developed by Goodyear which gives the revolutionary multi-purpose truck unparalleled speed and go-anywhere mobility to guided missile squadrons. Involving four pairs of these tires mounted on walking beams, braking had to be accomplished through gearing—brake had to be non-self-energizing. One unit had to control two of the wide, baglike tires. No space within wheels for brakes.

SOLUTION: A custom-designed Goodyear Industrial Disc Brake. Light in weight, higher kinetic energy absorption, non-self-energizing, spacesaving—an outgrowth of aviation pioneering.

QUESTION: Do you have a tough industrial braking problem stumping you? One that can't be solved by ordinary off-the-shelf brakes? Then better cast your eyes over the many unique advantages of this Goodyear brake that can be custom designed to solve the most difficult assignments! Proved on transmission brakes, machine tools, logging equipment, dynamometers and the like. FOR FULL INFORMATION, send your problem to:
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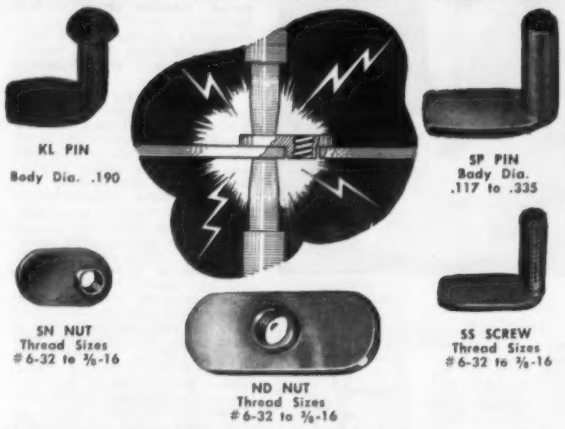

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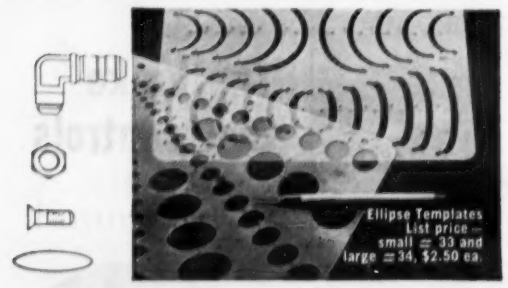

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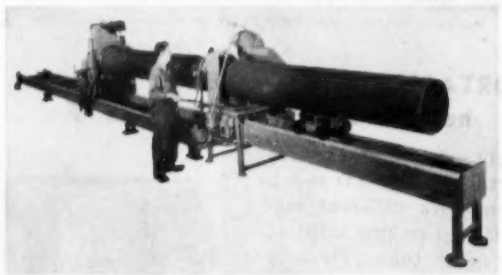

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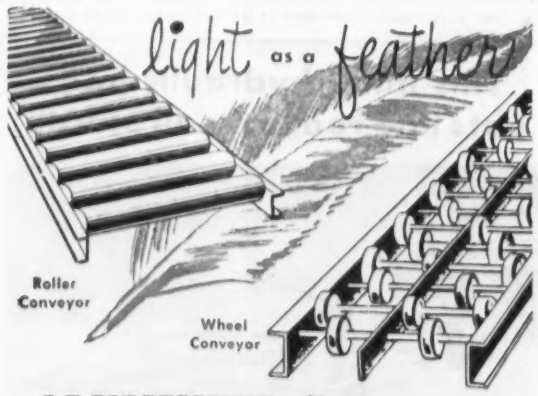

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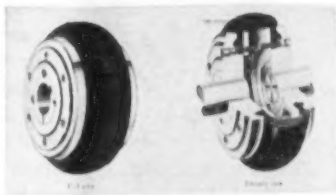
FLEXIBLE CUSHION COUPLING
rubber tire handles misalignment



Flexible rubber tire functions as the coupling member in this Para-flex flexible coupling unit, enabling it to handle angular and parallel misalignment and end-float, in any combination. The Flexible member also cushions shock loads and diminishes torsional vibration. Tire is clamped between two hubs mounted on the shafts to be coupled. It is held between flanges and clamp rings of the hubs. Transverse split molded into tire facilitates installation or replacement without moving driver or driven machine. Coupling will take up to 4-degree angular and up to ¼-in. parallel misalignments, and end-float up to 5/16-in. It is available in capacities to 600 hp at 900 rpm. Offered by **Dodge Mfg. Corp.**, 600 S. Union St., Mishawaka, Ind.

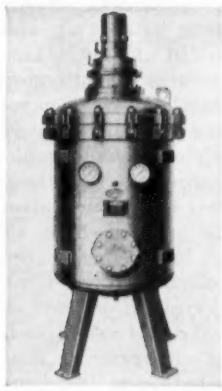
For more details circle NED-39 H7 on enclosed inquiry slip

SCIENTIFIC CAMERAS
available on rental basis

Laboratories requiring use of expensive scientific cameras for short periods can now obtain such equipment on a rental basis. Oscillograph recording, high speed, ultra-high speed and photomicrography cameras and cine-theodolites are among types of equipment offered for rent on a day, week, month or long term basis with immediate shipment from stock. Variety of lenses is also available. Rented by **Gordon Enterprises**, 5362 N. Cahuenga Blvd., North Hollywood, Calif.

For more details circle NED-40 H7 on enclosed inquiry slip

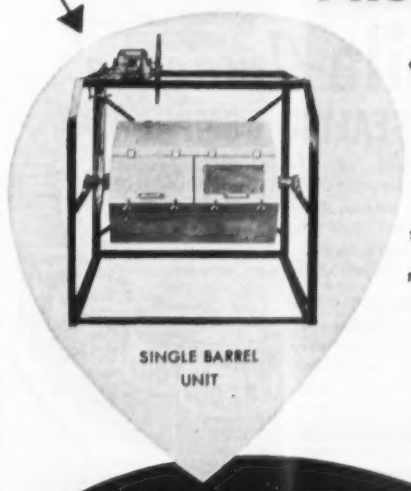
DUAL PURPOSE FILTER
has oil or coolant filter elements



This automatic, self-cleaning filter unit can use interchangeable filter elements for either lubricating oils or coolant liquids. The media for oils is made of wire-wound stainless steel or bronze, wrapped around a cast iron core with openings ranging from 0.002 to 0.015-in. The coolant element utilizes a brass perforated sheet in porosity range of 0.020 to 0.045-in. Interval repeat timer provides automatic self-cleaning and allows 20-second to 30-minute cleaning cycle. Large inspection port also serves as clean-out door. Flow rates range from 120 to 1200 gpm. Made by **Bowser, Inc.**, Lubrication & Filtration Div., 1381 E. Creighton Ave., Ft. Wayne 2, Ind.

For more details circle NED-41 H7 on enclosed inquiry slip

Kramer **SOLVES YOUR TUMBLING PROBLEMS**



Size 30" x 36" or engineered to your specifications. Barrels lined with kiln-dried-and-glued-maple. Child's play to operate—Economical on space—motors are individually mounted overhead-double-decked or single. Tumbling supplies also available.

Write Dept. MP for information

H. W. KRAMER CO.
120-30 JAMAICA AVENUE • RICHMOND HILL 18, N. Y.

For more details circle NED-42 H7 on enclosed inquiry slip

Garland Standard Traffic-Zone Paint dries in 15 to 30 minutes, stands heaviest traffic—won't discolor, blister or crack. Used on concrete, asphalt or other paving surfaces, its tough, resilient film is highly resistant to oils, greases and solvents, as well as heavy traffic. Apply with brush, spray or machine. Fade-resistant, hi-visibility colors. Traffic-zone yellow, Federal yellow, bright red, orange, green and brilliant white.

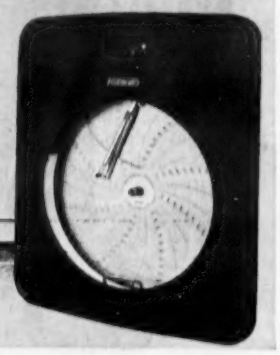
Write Dept. D-8

THE GARLAND COMPANY
Cleveland 5, Ohio

For more details circle NED-43 H7 on enclosed inquiry slip

LIQUID LEVEL

Indicators
Recorders
Controllers



The completeness of the Foxboro Line is your assurance of unbiased recommendations on instruments to indicate, record, or control liquid level. Whatever type of system you require (bubble tube, differential pressure, float, diaphragm box) . . . whatever your problem (such as turbulent, viscous, or corrosive liquids, whether in open or pressured vessels)—Foxboro offers the most efficient instruments for the job. Why not consult Foxboro first—and be sure! Write for Bulletin 8-10. **The Foxboro Company, 668 Neponset Ave., Foxboro, Mass., U.S.A.**

FOXBORO Instruments
REG. U. S. PAT. OFF.

For more details circle NED-44 H7 on enclosed inquiry slip

ADAMS creates a Cyclone to give you Drier Compressed Air

The Adams Aftercooler and Cyclone Separator are a perfect team. The highly efficient aftercooler condenses more moisture . . . the separator's unique design creates a cyclone to remove more of the condensation.

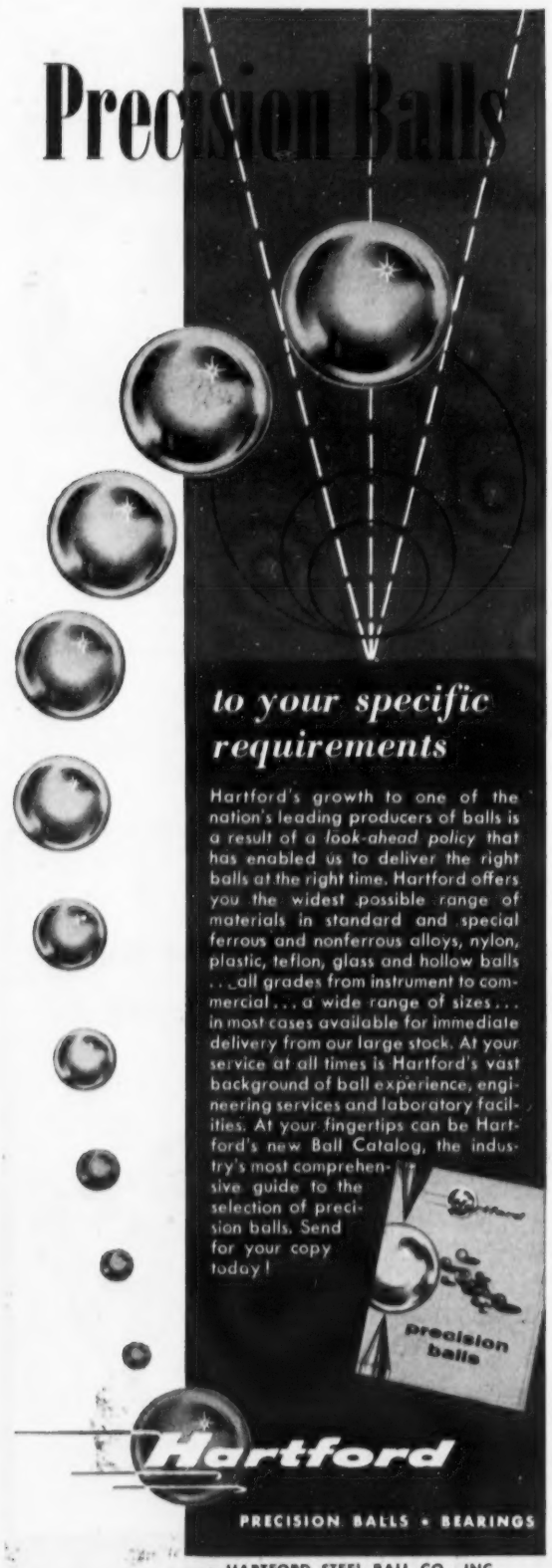
Write today for all the facts . . . Get your copy of Bulletin 711.

R. P. ADAMS CO., INC. 227 E. PARK DRIVE BUFFALO 17, N. Y.

For more details circle NED-45 H7 on enclosed inquiry slip

DELAWARE BARREL AND DRUM COMPANY
WILMINGTON 99, DELAWARE
In Canada: John Wood Company Limited — Toronto · Montreal · Winnipeg · Vancouver

For more details circle NED-49 H7 on enclosed inquiry slip



HARTFORD STEEL BALL CO., INC.
81 Jefferson Ave. West Hartford 6, Conn.

For more details circle NED-50 H7 on enclosed inquiry slip

BUFFING WHEEL
for use on soft materials

Seventeen rubber pads comprise the Kwik Kleen buffing wheel, used without a shield on rubber, plastics and other soft materials. It will remove flash and trim from molded rubber and plastic parts and can be used for roughing operations before vulcanizing. The 4½-in. diameter by 1½-in. wide wheel is offered with or without a threaded adapter nut for operating speeds from 1750 to 3450 rpm. Made by **James Back & Associates,** Dept. 18-A, Box 532, Riverdale Station, Dayton 5, O.

For more details circle NED-51 H7 on enclosed inquiry slip

METER GUARD
protects against dropped objects

Made to fit model 260, 303, 276 and 880 Simpson instruments, this transparent Involex plastic Meter - Guard slips on over the Bakelite meter case for protection against dropped tools and other hazards. It prevents damage to meter glass, case and movement. List price is $2.50. Made by **Electronic Development Laboratories,** Dept. N, 71 Nassau St., New York 38, N. Y.

For more details circle NED-52 H7 on enclosed inquiry slip

WALKIE ELECTRIC TRUCKS
in low and high lift models

Roto-Cam control incorporated in low and high lift models of L-S walkie type electric trucks affords dynamic braking and controlled plugging. Latter assures smooth stop and acceleration when reversing direction of travel, while dynamic braking provides shockless, gradual stop when control handle is released or allowed to return to the vertical position. Emergency solenoid brake functions when control handle is in horizontal or vertical position and the truck is in neutral or forward speed. There are three speeds forward and reverse, dual lift and lower buttons, and horn button in the comfortable handle. Included in line are pallet, platform, straddle and counterbalanced models in capacities to 6000 lb. Made by **Lewis-Shepard Products, Inc.,** Dept. R-9, 125 Walnut St., Watertown 72, Mass.

For more details circle NED-53 H7 on enclosed inquiry slip

FEDERAL PROCESS CO.
1120-A Citizens Bldg. • Cleveland 14, Ohio

For more details circle NED-54 H7 on enclosed inquiry slip

PLANT and EQUIPMENT
IDENTIFICATION
Westline's self-adhering
NUMERALS · LETTERS · SIGNS

ELIMINATE COSTLY, MESSY STENCILING AND PAINTING with Westline's handy new line of numerals, letters and signs. With a range of sizes to suit every need, stock markers and die-cut items come in highly-readable color combinations. Available in several materials, all items incorporate Westline's adhesive peel-off backing feature that allows application without touching adhesive. Custom markers also available.

Available nationally, write for working samples and name of your distributor.

WESTLINE PRODUCTS
Division of Western Lithograph Co.
606 E. 2nd St.
Los Angeles 54, Calif.

For more details circle NED-55 H7 on enclosed inquiry slip

Our Handbook . . .

is on your desk!

We invite you to consult it for your factory and office equipment needs. If you desire additional handbooks we'll be pleased to send them.

GENERAL INDUSTRIAL CO.
55 INDUSTRIAL BLDG.,
5736L Elston Ave. Chicago 30, Illinois

For more details circle NED-56 H7 on enclosed inquiry slip

LIFT DRUMS HIGH

The Model BM 3 "High Boy" Sterling Hydraulic Drum Lift permits SAFE lifting of drums to a height of 72". One-man operated. Stack drums two high or lift and lock drum in pouring position at any height. Drums can be rotated 360°.

Easy Lock Girdles for drums, containers, cylinders or carboys.

Heavy-duty Hydraulic Jack with 750 lb. lifting capacity.

Rugged all steel construction. Roller bearing casters. Safety legs.

SAFE! PORTABLE! EASY TO USE!

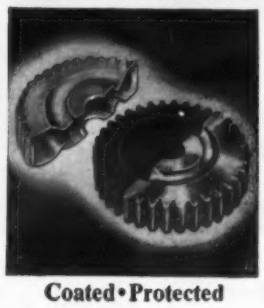
For complete details and specifications write
STERLING, FLEISCHMAN CO.
BROOMALL, PA.

For more details circle NED-57 H7 on enclosed inquiry slip

HOT MELT PLASTIC COATINGS
for GEARS • TOOLS • PRECISION PARTS

BEFORE SECONDS AFTER

Dip



Coated • Protected

DIP-PAK Protect vital, expensive tools, gears, and machined parts during storage and shipping with Fidelity's durable, transparent plastic coatings. Merely melt coating briquette, dip parts, cool. Lasts indefinitely. Tough; abrasive, moisture, rust resistant. To remove, slit, peel. Re-melt, re-use coating. Economical, practical, rapid. Protect parts; save money.

Write for Bulletins and Free Samples
Fidelity Chemical Products Corp.
479 Frelinghuysen Avenue, Newark 5, N. J.

For more details circle NED-58 H7 on enclosed inquiry slip

TOOL CHEST
for large maintenance tools

Measuring 40 x 16 x 12 in., this maintenance tool chest will accommodate a 36-in. sledge hammer, plus large socket and pipe wrenches. It has a 23½ x 8¾ x 2¼-in. removable tote tray. The 14-gage steel chest has a hasp and staple for padlocking and handles on both ends. It can be mounted on trucks or on accessory 5-in. casters, two with brakes and two without, for making it a rolling tool box. Made by **Waterloo Valve Spring Compressor Co.**, Box 209, Waterloo, Iowa.

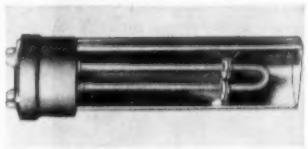
For more details circle NED-61 H7 on enclosed inquiry slip

INDUSTRIAL GLOVES
protect from abrasion and injury

A knit wrist, fully coated women's glove and a 14½-in. long coated men's gauntlet have been added to the Stanflex line of industrial gloves. Both are designed to provide liquid-tight gloves which will protect worker's hands against abrasion or injury from contact with dangerous substances. They have a coating of tough wear-resistant Pylox vinyl plastic over a lining of Soff-nap knit jersey. Strong seams are lined to prevent irritating hands. Gloves are suited for handling sheet metal, pipe, clay tile, concrete products, bulk chemicals or lumber. Made by **Pioneer Rubber Co.**, 634 Tiffin Rd., Willard, O.

For more details circle NED-62 H7 on enclosed inquiry slip

RADIANT HEATER
liquid-tight units rated 800-7200 w



Liquid-tight Chromalox electric radiant heaters are designed for industrial applications where uncontrolled heavy splashing prevails, or where periodic washdown is required. U-shaped tubular heating element, rated 94 w per inch of heated length, is firmly centered in rigid extruded aluminum housing with polished metal reflector. Heaters are equipped with movable clamps. Twenty-seven standard heated lengths range from 8 5/16 to 77⅞ in., with overall lengths ranging from 13 5/16 to 87¼ in. Special ratings and overall lengths to 165 in. are available. Standard wattages from 800 to 7200 with voltages of 120, 240 and 480 are offered. Made by **Edwin L. Wiegand Co.**, 7509 Thomas Blvd., Pittsburgh 8, Pa.

For more details circle NED-63 H7 on enclosed inquiry slip

WEBB **TOWVEYOR***
for FASTER, SAFER & EASIER MATERIALS HANDLING

FASTER travel from loading to unloading stations—trucks are delivered to proper destination without wasted traveling time.

EASIER handling—trucks engage Towveyor chain by lowering tow pin and are disengaged at any point by raising of tow pin.

SAFER floors—Towveyor eliminates overhead chains and supports and employees can safely walk or truck over any portion of the system.

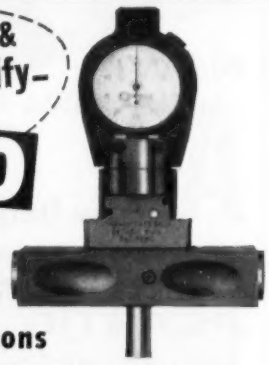
Cut your costs with a Towveyor system that will efficiently speed up your materials handling.

*Towveyor is a registered trademark identifying floor truck conveyors patented, manufactured and installed by the Jervis B. Webb Company.

JERVIS B. WEBB CO.
Conveyor Engineers and Manufacturers
8921 ALPINE AVE. • DETROIT 4, MICH.
OFFICES IN PRINCIPAL CITIES

For more details circle NED-65 H7 on enclosed inquiry slip

more designers & tool builders specify—
HANLO
UNIVERSAL GAGE UNITS
for these **7** reasons



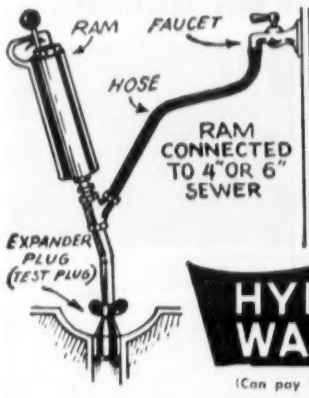
1. All parts of Hanlo Units are standard and replaceable.
2. All moving parts are fully enclosed, and well protected from dust and foreign matter.
3. Any impact from external or internal shock, is absorbed by the gage unit, and not the indicator.
4. The indicator is fully protected on all sides.
5. Indicator movement is restricted within one revolution, to insure against both injury and misreading.
6. Indicator can be rotated in movements of 45°, to permit easy reading on large gages, or in cramped areas.
7. Hanlo Units are never obsoleted by model or engineering changes—simply transfer the standard units.

TRACING TEMPLATES ARE AVAILABLE ON REQUEST

HANLO GAGE COMPANY
division of
JOHNSON DIE AND ENGINEERING CO.
18415 Weaver Ave. • Detroit 28, Michigan

For more details circle NED-59 H7 on enclosed inquiry slip

Enjoy 30 Day Free Trial!



Easily clears the most stubborn drain and sewer stoppages

The ideal plumbing service tool for maintenance men!

Comes equipped with self-contained compressor and drain adaptors in 6 sizes!

HYDRAULIC WATER RAM
(Can pay for itself in one application!)

Why lose time, suffer inconvenience, waste dollars on needlessly costly plumbing service? The Hydraulic Water Ram clears severest blocked drain lines and sewers in minutes. No chemicals, no snakes, no electric cables, no pushing through. Saves costly outside help, or expensive torn up piping. Uses IMPACT, (HYDROSTATIC) a basic scientific principle of POSITIVE HYDRAULIC POWER. Shatters hard grease, debris, other blockage into fragments easily flushed down to main. Works perfectly, vent or no vent! Services up to 6" pipe. Works perfectly on all types of clogged toilets, sinks, sewers, etc. Can pay for itself in a single application. Nothing to wear out. Good for a lifetime. Thousands in use, including over 3,000 in government agencies. You risk nothing. Write for details on how to get free 30 day trial at our expense.

Saves on Outside Help

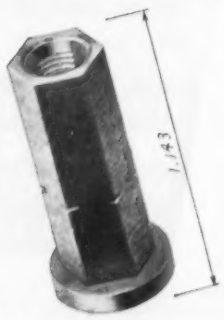
Saves Torn-Up Plumbing

Write for Information, Prices, Details of Free Trial Offer!

HYDRAULIC MANUFACTURING CO.
Dept. NED-8 Kiel, Wisconsin

For more details circle NED-66 H7 on enclosed inquiry slip

CUT COSTS!
with New
SYNCHRO AUTOMATIC MACHINING
Process



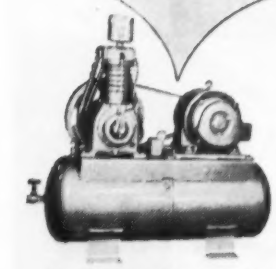
Through this exclusive engineering development we eliminate 2d and 3d operations and thereby offer definitely lower prices on special types of screw machine work. We machine eccentric, square inside of round, cross drill two holes in different radial positions and tap same. Cross drilling, milling, slotting, threading, broaching and burnishing . . . all can be done in one operation. Tolerances to .0003" where desired. Write for brochure outlining types of products to which this money saving process applies.

A. G. KADDIS SCREW PRODUCTS, INC.
312 Hudson Ave.
Rochester 5, N. Y.

A KADDIS SYN-CRO-MATIC PRODUCT

For more details circle NED-60 H7 on enclosed inquiry slip

LUCKY PURCHASE SAVES YOU BIG MONEY!
BRAND NAME AIR COMPRESSORS ALL NEW!



• SERVICE AND PARTS AVAILABLE THROUGHOUT THE WORLD 1957 MODELS

Each unit is a self contained compressed air system, consisting of COMPRESSOR PUMP (Timken Main Bearing, Centrifugal Unloader Positive Force Feed Lubrication Two Stage) Air cooled slow speed for longer life

MOTOR—Conforms to NEMA specifications TANKS - ASME rated 200 PSI.

CONTROLS Safety valve pressure gauge, automatic start and stop pressure switch (constant speed available) tank drain and globe valve.

We pay all freight—shipped open to rated firms.

ONE-YEAR WARRANTY, LIMITED QUANTITY, ORDER TODAY

On Hand	Motor H.P 60 Cy.	C.F.M. Displacement	Tank Size Gallons	List Price 110 120 Volts 1 Phase	List Price 220 440 Volts 3 Phase	Your Lucky Price Single Phase	Your Lucky Price Three Phase
11	1	5.7	30	$444	$ 433	$250	$ 260
7	1½	8.6	30	571	540	375	355
8	2	11.7	60	612	607	395	375
4	3	18.4	60	791	684	479	429
7	5	27.7	60	976	719	659	409
9	5	27.7	80	929	769	679	489
3	7½	41	80		1,312		790
8	10	51	80		1,454		890
6	15	81.3	120		1,941		1,290
7	20	102.7	120		2,118		1,490
6	30	185	120		2,810		2,535
4	40	217	120		2,960		2,675

C & H ELECTRIC MACHINE CO.
1210 NO. 5TH ST., MILWAUKEE, WIS.

For more details circle NED-64 H7 on enclosed inquiry slip

Self-cleaning chip and liquid separator for industry. Henry Automatic Separators can mean years of efficient, low cost machine-tool coolant cleaning for your grinding operations. Simplicity of design and operation incorporates all the principals of liquid clarification, flotation and settling. Available in single units or central systems with capacities from 20 to 2,000 G.P.M. Write us today for complete catalog—and an answer to your filter problems.

High-potential territories open to responsible manufacturers agents.

HENRY MANUFACTURING COMPANY, INC.
P. O. Box 219 Bowling Green, Ohio

For more details circle NED-67 H7 on enclosed inquiry slip

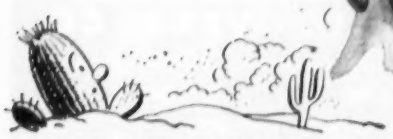
Working in a DUST BOWL?

YOU NEED . . .

DUPOR No. 24

The U.S. Bureau of Mines approved respirator that *filters the air and makes it clean!* 24 square inches of filtration area makes breathing a breeze! For those who must work in dusty places there is nothing quite like Dupor No. 24. Get details! Order sample today, $3.00 postpaid.

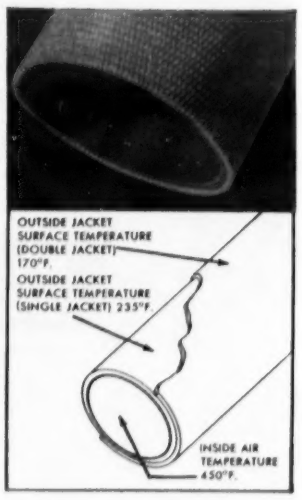
H. S. COVER, P. O. Box 2508
South Bend 14, Indiana
"Respirators for Industry since 1894"



▲ For more details circle NED-68 H7 on enclosed inquiry slip ▲

NEW QUAKER HOSE for hot air ducting

Made in continuous lengths up to 50′, this new hose easily withstands temperatures as high as +450°F; as low as —80°F. Its synthetic fabric jacket and silicone tube retain temperatures from upstream to downstream end . . . cut heat loss up to 57%. Lightweight and fully flexible, the hose resists abrasion. Available in either single or double jacket, and in 1″ to 4″ I.D.'s. Sizes 1″ and 1¼″ I.D. can be made in 30′ continuous lengths; 1½″ to 4″ I.D. in 50′ lengths. The hose takes regular expansion and shank hose couplings.



For more information, write:

H. K. Porter Company, Inc., Quaker Rubber Works, Philadelphia 24, Pa., or Pioneer Works, Pittsburg, Calif.

QUAKER RUBBER DIVISION
H. K. PORTER COMPANY, INC.

▲ For more details circle NED-69 H7 on enclosed inquiry slip ▲

NEW! Ohio Gear handbook

. . . is power-packed with 186 pages of complete information on how to calculate and plan the proper transmission for any drive problem. Contains valuable charts, tables and formula to help you select the right gears or speed reducers for the job.

GEARS: This section of the catalog tabulates complete dimensions on Ohio standard spur, bevel, mitre, spiral, helical, worm and worm gears, and steel rack. Most items available with 14½ and 20 degree pressure angle.

SPEED REDUCERS: This section of the catalog gives you the specifications, dimensions and other vital information necessary to select the proper reducer in relation to required ratios, horsepower input, torque and space availability.

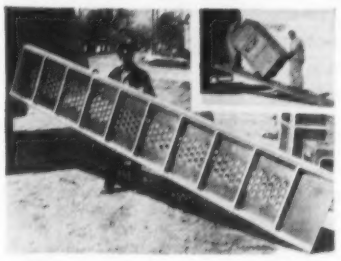
● Contains information to which you'll constantly refer for valuable transmission ideas.

SEND FOR YOUR COPY TODAY

THE OHIO GEAR COMPANY
1320 East 179 Street · Cleveland 10, Ohio
Please send me your new 1957 Gear & Reducer Catalog:
Name .....
Company ..... Title .....
Address .....
City ..... Zone ..... State .....

▲ For more details circle NED-70 H7 on enclosed inquiry slip ▲

PORTABLE RAMP
14-ft unit is 26½ in. wide



One man can set up, use, remove and store this portable aluminum and magnesium ramp which stows under the truck body frame. Ramp has a perforated, self-cleaning Hi-Traction walkway in the center and smooth guard rail-protected outer edges for wheeling hand trucks. It has a 1000-lb load capacity, width of 26½ in. and length of 14 ft. Truck bed heights from 34 to 54 in. can be serviced. Also available are 7-ft and 8-ft by 39-in. models. Made by **Magline Inc.**, Box 200, Pinconning, Mich.

▲ For more details circle NED-71 H7 on enclosed inquiry slip ▲

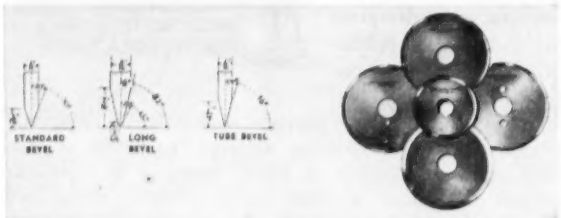
BIN-MARKING NUMBERS
are washable and self-adhesive

Ten boxes comprise the complete marking kit of self-adhesive press-on numbers for marking bins or other equipment. This stainless steel Handy Marker can be carried to the job and used on bench or cart. Numbers are printed on white in three sizes: ½ x ¾-in. in black, ¾ by 1¼ in. in black or red and 1 x 1¾ in. in red. Each box dispenses 500 markers which "pop up" individually from liner tape. Made by **Mark'Andy Inc.**, 143 Grand Ave., St. Louis 22, Mo.

▲ For more details circle NED-72 H7 on enclosed inquiry slip ▲

CUTOFF WHEELS
for pipe and tube tools and machines

Doubled number of cuts between sharpenings has resulted from use of Hi-Alloy Shok-Resisto steel in pipe and tube cutoff wheels in place of standard



steel formerly used. They are offered in standard bevel, ⅛-in. thick for pipe and tube up to 3/16-in. wall thickness; long bevel, 3/16-in. thick for 7/16-in. walls; and tube bevel, ⅛-in. thick for light wall tubes up to 16-gage thickness (see illustration). Made by **Continental Machine Co.**, 1954 N. Maud Ave., Chicago 14, Ill.

▲ For more details circle NED-73 H7 on enclosed inquiry slip ▲

New BUSCHMAN
TROJAN "A"
Portable Belt Conveyor

• Faster
• Safer

Rugged ALUMINUM ALLOY BOOM provides easier maneuverability . . . greater versatility!

UP . . . DOWN or any angle you want Hydraulically

- Reversible Travel: 12″ Belt
- 10′, 12′, 14′, 16′, 18′ and 20′ lengths
- One-man operation . . . on-the-job economy
- Adjustable ultra-lightweight boom folds for easier shipment, storage
- Practical "booster" for gravity systems

WRITE TODAY!

Get cost-cutting details on the economical TROJAN "A" . . . ask for Bulletin #50AA.

PRODUCE MORE FOR LESS — Buschman CONVEYORS

THE E. W. BUSCHMAN CO.
4482 Clifton Ave., Cincinnati 32, Ohio

C-326-EWB

▲ For more details circle NED-74 H7 on enclosed inquiry slip ▲

In Your Plant THERE ARE PICTURES LIKE THIS

If YOU HAVEN'T CHANGED TO THE SABIN BARREL TRUCK

Sabin ONE MAN way of handling barrels and drums saves labor.

This method is simple. You run truck up to container, hook on at top and pull back on handle to pick up loads weighing as much as 800 pounds.

Third Wheel Feature gives better balance—and makes handling safer, too.

WRITE FOR BULLETIN NO. 48-A
Sales representatives wanted in several territories.

THE SABIN MACHINE CO.
6536 Carnegie Ave.
CLEVELAND 3, OHIO

▲ For more details circle NED-75 H7 on enclosed inquiry slip ▲

NOW! **ACE** helps you get **FABRICATED PLASTIC PARTS** faster...at lowered costs

New e-x-p-a-n-d-e-d production facilities now give you ACE HIGH QUALITY on all types of screw machine, centerless ground parts and special shapes . . . all colors . . . all materials.

LUCITE • PLEXIGLAS • ACRYLIC • ACETATE • BUTYRATE • CAST PHENOLIC • EPOXY RESIN • ETHYL CELLULOSE • KEL-F • LAMINATED BAKELITE • NYLON • POLYETHYLENE • STYRENE COPOLYMERS • TEFLON

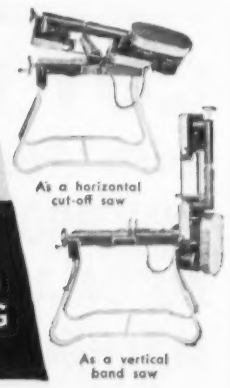
Sizes: ⅛″ to 2¼″ • Lengths: 1/16″ to 9″

Write, wire, phone for samples, prices and bulletin listing stock items. Send specifications or blueprints for prompt quotations on specials.

Ace PLASTIC COMPANY
EXTRUSION MOLDERS AND FABRICATORS
91-28 Van Wyck Expressway, Jamaica 35, N.Y. • JAmaica 3-5500

▲ For more details circle NED-76 H7 on enclosed inquiry slip ▲

You CAN take it with you . . . or use it in the shop



THE VERSATILE **WELLS 49A** METAL CUTTING BAND SAW

Use the Wells 49A in the shop, or take it to the "job-site"—you'll find it an efficient tool—a time and money saver on a wide variety of metal cutting jobs.

As a horizontal cut-off tool it has a capacity of 3½″ x 6″. One easy motion converts it to a vertical band saw. No tools required! Just swing the head into upright position—it's ready to use. Cut angles, slots, do light contour work.

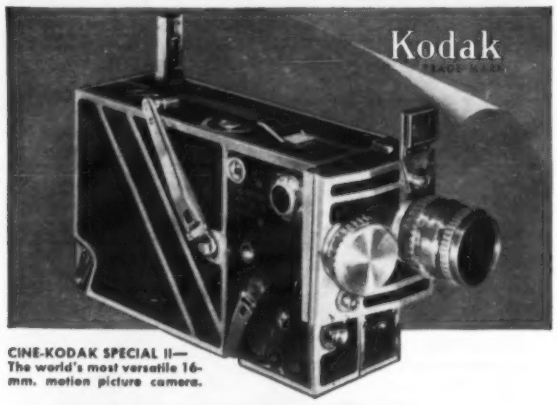
Get TWO saws for the price of ONE!

Write for complete information.

Wells

The Pioneers of Horizontal
METAL CUTTING BAND SAWS
WELLS MFG. CORP.
1313 Harding St., Three Rivers, Mich.

▲ For more details circle NED-77 H7 on enclosed inquiry slip ▲



CINE-KODAK SPECIAL II—The world's most versatile 16-mm. motion picture camera.

Make movies that work for you!

In almost every industrial activity—engineering, manufacturing, employee training, research, safety and methods evaluation—in-plant movies are the fastest, easiest, and most effective method for putting across your story.

And for on-the-job movie making, many leading industrial companies have chosen the Cine-Kodak Special II Camera. It has the versatility to handle almost any type of job. Yet its simplicity of operation enables you to get high-caliber results almost as easily as taking home movies.

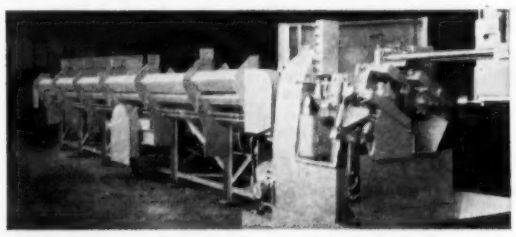
WRITE FOR FREE BOOKLET, V1-3, describing the Cine-Kodak Special II.

EASTMAN KODAK COMPANY, Rochester 4, N. Y.

For more details circle NED-78 H7 on enclosed inquiry slip

Why Don't You GO MODERN?

You spread manure and sow the seed,
To make your lawn grow rich and green.
And then you sweat to keep it short
With an old time cutting-off machine.



Nobody has to sweat when you cut off tubing up to 8 inches in diameter—and bar stock—on the Modern Cutting-off Machine equipped with automatic loader. Once the loader is filled with stock—in random lengths if you wish—you simply push the button and go back to your pinochle game.

This machine is fast—accurate—economical. It will save you money.

Write for full story—and catalog.

MODERN MACHINE TOOL COMPANY
2005 Losey Ave., Jackson, Mich.

For more details circle NED-79 H7 on enclosed inquiry slip

P - M

. . . your sure source of

SMALL METAL STAMPINGS!

For prompt, dependable delivery on all types of small metal stampings in any quantity, write, phone or wire Patton-MacGuyer. Our modern plant and equipment and experienced engineering staff assure clean, accurate stampings made to your exact specifications.

- *Small Metal Parts in Brass, Bronze, Steel and Aluminum.*
- *Send blueprints or write for details.*

P-M PATTON-MacGUYER COMPANY
16 Virginia Ave., Providence 5, R. I.

For more details circle NED-80 H7 on enclosed inquiry slip

OVERLOAD CONTROL also indicates motor load

Accurate fail-safe overload control, continual indication of motor load, and adjustable load limits are afforded by the Load Sentry. This electro - mechanical device uses a contact meter-relay and can be used on any electric motor driven equipment. It is easily hooked into control switches. Maximum overload to be permitted is set by an adjustable pointer on the dial of the meter-relay. Another pointer indicates the actual motor running load. Interlock keeps circuit broken until trouble is corrected. Fail-safe circuitry is used to protect against abnormal conditions. Usable on alternating current only, control is available with transformers for various load conditions. Made by **Assembly Products, Inc.,** Wilson Mills & County Line Rds., Chesterland 61, O.

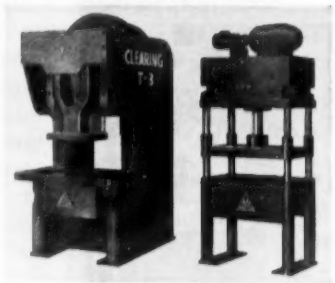
For more details circle NED-81 H7 on enclosed inquiry slip

FREQUENCY CONVERTER delivers 400-cycles from 60 cycles

Up to 20 watts of 400-cycle power is delivered from any 60-cycle power source by this frequency converter. Compact and light in weight, it is readily carried to the job and is designed for continuous use. Made by **Liquidometer Corp.,** 37-75 Skillman Ave., Long Island City 1, N. Y.

For more details circle NED-82 H7 on enclosed inquiry slip

TRIMMING PRESS ratings range from 25 to 60 tons



Wide bed area with low tonnage and convenient bed openings for disposal of scrap are features of line of trimming presses that adapt them for removal of flash from die castings. Hydraulic and mechanical models are available with bed and slide areas from 32 x 18 in. to 34 x 20 in., stroke lengths from 3 to 12 in., 30 to 120 strokes per minute and ratings from 25 to 60 tons. Standard slide adjustments and slide knockouts are available. Semi-custom presses can be supplied for specific needs. Made by **Clearing Machine Corp.,** Dept. NED, 6499 W. 65th St., Chicago 38, Ill.

For more details circle NED-83 H7 on enclosed inquiry slip

Cleveland miniature socket screws give extra strength in compact assemblies

Cleveland miniature cap and set screws eliminate the need for designing special screws to fasten parts in compact units. In countless intricate devices — servomechanisms, computers, typewriters, electronic and electrical equipment—they are used as functional parts permitting significant reduction in size, weight and cost without sacrificing strength.

Dimensions are held to very close tolerances. Accurately formed hexagon sockets insure high torque, nonslip wrenching, and maximum wrench holding power. Threads are rolled for accurate Class 3 fit and to gain extra fatigue and tensile strength. Alloy steel screws are carefully heat treated to obtain optimum of 180,000 psi minimum tensile strength.

Cleveland standard miniature screws are available from stock in both high quality heat treated alloy steel and nonmagnetic 18-8 stainless. Write today for prices and a copy of the Cleveland socket screw products folder.

THE CLEVELAND CAP SCREW COMPANY
4444-18 Lee Road, Cleveland 18, Ohio
Warehouses: Chicago • Philadelphia • New York • Los Angeles

For more details circle NED-84 H7 on enclosed inquiry slip

MACHLETT Industrial Tubes ...via Graybar

Outstanding design and carefully controlled production techniques assure you of stable, long term Machlett tube performance. Here we introduce the ML 5736 which directly replaces any make 5736 in 2 to 5 kW Induction and Dielectric Heating Equipments. This new industrial triode incorporates these improvements:

Precise and stable alignment of electrodes — for uniform operation, and to prevent cathode-grid shorts.

Brazed radiator construction — to eliminate hot-spotting and its effects.

The Machlett quick, final "seal-in" — which assures a contaminent-free, stress-free tube and a non-poisoned cathode.

This and other Machlett tubes can be quickly and conveniently ordered through Graybar offices and warehouses located in over 130 principal cities from coast-to-coast. Your nearby Graybar Representative will be glad to provide complete price information as well as technical service and assistance. Graybar Electric Company, Inc., 420 Lexington Ave., New York 17, N. Y.

605-288

Call Graybar first for . . .
IN OVER 130 PRINCIPAL CITIES

Everything Electrical GraybaR ELECTRIC COMPANY

For more details circle NED-85 H7 on enclosed inquiry slip

LIFTS and PULLS at ANY angle . . .

Move machinery, pull boiler tubes, join belts, set pipe, lift motors—for 1001 uses pick up a

CM PULLER

¾ TON MODEL WEIGHS ONLY 13 LBS.

● Operated by a ratchet handle requiring no more effort than an automobile jack. Objects up to 12,000 lbs. can be lifted or pulled . . . vertically, horizontally or at any angle. Anyone can operate. Automatic brake holds loads at any point. Inexpensive. Sturdy. Safe. CM-Alloy flexible welded load chain.

Send for PULLER Bulletin 146 Illustrated and with prices.

Capacities: ¾ to 6 ton

CHISHOLM-MOORE HOIST DIVISION
COLUMBUS McKINNON CHAIN CORPORATION
TONAWANDA, NEW YORK
DISTRICT OFFICES: NEW YORK, CHICAGO, CLEVELAND
In Canada: McKinnon Columbus Chain Limited, St. Catharines, Ontario

For more details circle NED-86 H7 on enclosed inquiry slip

SILVER ALLOY BRAZING GIVES YOU THESE BENEFITS

JOINS MOST METALS

STRONG, PERMANENT JOINTS

CHOICE OF HEATING METHODS

Join most metals—similar or dissimilar with Handy & Harman's EASY-FLO or SIL-FOS, quickly and economically.

Brazed Joint is permanent and strong—fluid and gastight, resistant to corrosion and vibration.

You choose the heating method—torch, burner, induction, electric resistance, incandescent carbon, salt bath or furnace.

With silver brazing, the design of your product often can be simplified.

Bulletin 20—gives you the full story of EASY-FLO, SIL-FOS and HANDY FLUX as well as information on joint design and brazing techniques. Send for your copy.

HANDY & HARMAN 82 Fulton Street New York 38, N. Y.

For more details circle NED-87 H7 on enclosed inquiry slip

Efficient hoists for welders and fabricators...

Compact, popularly priced Model 55 Hoists are conveniently installed—economically maintained. Gearing is of rugged, simplified design—lubrication is permanent. Two automatic brakes hold the load securely. Speeds available to suit the need. Capacities ¼ to 2 tons. Consult your dealer for complete data or write to us for catalog.

DR Model 55

cable type

Electric Hoists

David Round and Son, Inc.
P. O. BOX 883 CLEVELAND 22, OHIO

For more details circle NED-88 H7 on enclosed inquiry slip

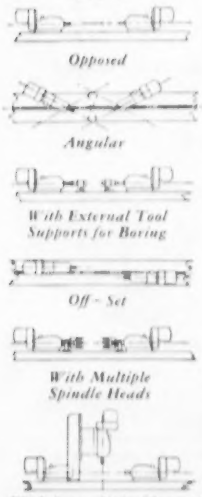
DRILL-TAP THREAD-FACE REAM . . .

FASTER at LESS COST!

Hause Holomatic Double End machine. Available with manual cycle or automatic—interlocked control systems.

with a Holomatic

Methods of Use



• Hause Holomatic Double End machines are designed specifically to perform *two or more* drilling, tapping, threading, reaming, thread rolling, chamfering, spot facing—or similar operations *at one time.*

Holomatic units use factory air supplies for thrust power and a self-contained hydraulic system provides positive, infinitely adjustable control of the rapid travel and feed movements of the quill.

A Holomatic Double End machine efficiently handles parts up to 35" long by 18" in diameter. Capable of drilling ⅝" in mild steel, tapping ¾"—16 and cycling speeds up to 3600 full length strokes per minute. Easy to set up using standard air clamps, index tables and other part locators.

A Holomatic Double End machine in your plant will quickly pay for itself—even on low quantity production work. Investigate the many advantages of the Holomatic system—now!

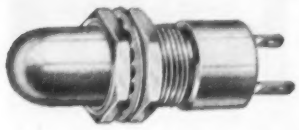
• *Write today for complete information plus an actual obligation-free Holomatic demonstration in your plant.*

Hause MACHINES, INC.
MONTPELIER, OHIO

For more details circle NED-89 H7 on enclosed inquiry slip

PILOT LIGHT
subminiature model uses glow lamp

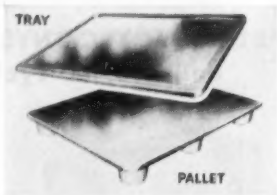
Red, amber, yellow and white colors are offered in the series 137-7336-931 subminiature pilot light which measures ¾ x 1¼ in. and mounts in a 17/32-in. clearance hole from the front of the panel. It uses a tiny G-E NE2D neon glow lamp that consumes about 0.04-w of power, produces practically no heat and has an average life of 25,000 hours. Stovepipe-shaped cap of high heat plastic provides 180-degree visibility. Metal parts are brass with black nickel finish, or optional white nickel or chrome finish. Perforated terminals are tinned for soldering. Made by **Dialight Corp.**, 64 Stewart Ave., Brooklyn 37, N. Y.



For more details circle NED-90 H7 on enclosed inquiry slip

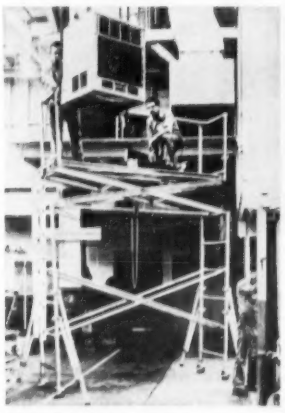
PLASTIC PALLETS
afford safe, economical handling

Pallets, skids, shipping trays and flexible stacking Paltiers comprise line of reinforced plastic materials handling units. Smooth, safe-to-use and practically as strong as steel, they weigh only 23 lb for the 40 x 48-in. pallet. Because they are uniform in weight in each type and size, load inventory is simplified. They are unaffected by heat, cold, moisture or vermin and rodents. Easily cleaned or sterilized, they cannot absorb moisture or odors. They are also nonsparking and will not support combustion. Made by **Paltier Corp.**, 1705 Kentucky St., Michigan City, Ind.



For more details circle NED-91 H7 on enclosed inquiry slip

ADJUSTABLE ELEVATING PLATFORM
facilitates overhead maintenance

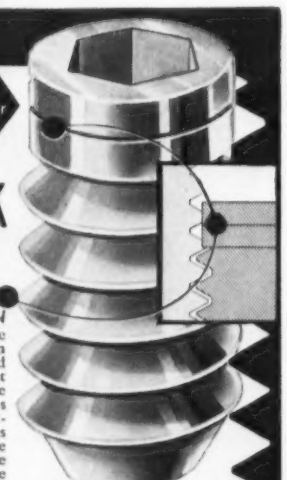


Overhead fixtures, equipment and surfaces become readily accessible to maintenance workers on this adjustable high-level platform. Mounted on casters and equipped with safety outriggers, this aluminum scaffold structure can be rolled to the job and erected in less than 2 minutes without tools. Chain driven screw jack - knife mechanism raises or lowers platform in level position to any height from 6 to 12 ft above floor. Made by **Up-Right Scaffolds**, 1013 Pardee St., Berkeley 10, Calif.

For more details circle NED-92 H7 on enclosed inquiry slip

ideal for plastic and soft steel
eliminates need for precise tapping

NEW crest-lok self locking set screw

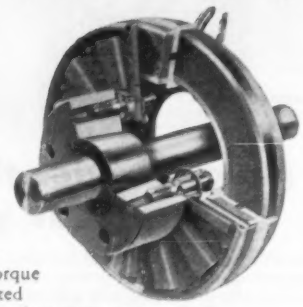


NEW LOCKING ACTION
The locking action of the CREST-LOK consists of an unthreaded portion, a thread and a half high, at the crest of the Set Screw. The diameter at the crest is approximately the blank diameter. When the screw is inserted it compresses the crest of the threads in the tapped hole, locking the screw firmly into position . . . Precisely tapped holes are not necessary.
You can control the amount of locking action of the Crest-Lok by simply changing the tap drill diameter . . . Re-use does not appreciably affect the locking action. Available in any size headless Set Screw and in any special or standard point.
Crest-Lok can be Hopper-Fed with the Setko originated feeding system that brought *Automation* to Set Screw insertion. Experience has shown insertion rates can be increased many times through the Setko System.
WRITE TODAY for full information . . . and ask for Catalog 21 which describes the complete line of Setko Set Screws.

Set Screw & Mfg. Co.
130 Main Street, Bartlett, Illinois (Chicago Suburb)

For more details circle NED-93 H7 on enclosed inquiry slip

NEW electric power brake
NEW fail-safe features
NEW design flexibility



It's Warner's new POWER-SAFE electric brake, designed for use as a power brake . . . fail-safe brake . . . or both! Permanent magnets supply full-time reserve braking power. No moving parts in fail-safe feature. Not an "off-on" brake—torque build-up can be adjusted electrically. No shock when permanent magnets operate brake. Can be used in combination with a clutch in a small space. Advantages and features described in Catalog No. 6291. Write today!

WARNER

Beat competition with
ELECTRIC BRAKES AND CLUTCHES
Industrial Division
Warner Electric Brake & Clutch Co., Beloit, Wis.

For more details circle NED-94 H7 on enclosed inquiry slip

choice of SIX TYPES
MEYCO MAINLINE SAWS
the quality carbide tipped saw
—AT A POPULAR PRICE!

FOUR TYPES UNI-CHIP SAWS
Your choice of rip, precision, all purpose and metal cutting saws, each in several diameters and with different number of teeth, with MEYCO's famous UNI-CHIP grind feature: alternating double-beveled cutting teeth and straight raker teeth for chip clean out and smooth cuts.

PORTABLE AND TABLE SAW BLADES
Top-flight MAINLINE quality at a popular price, to cut all woods and abrasive materials in all bore sizes for any make portable and table saws. Diameters from 5¼ to 8 inches . . . last 50 times as long as steel saws.

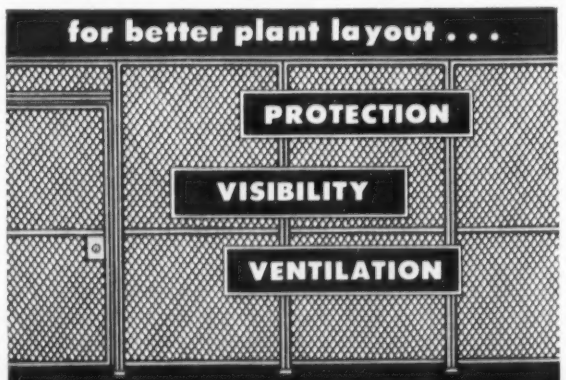
COMBINATION PLANER TYPE SAWS
The "work-horse" of the MAINLINE—an all-purpose carbide tipped saw that has been designed to cross cut, rip and miter efficiently in a wide variety of materials.

Ask for MAINLINE Catalog 69

W. F. MEYERS CO., INC., BEDFORD, INDIANA

For more details circle NED-95 H7 on enclosed inquiry slip

for better plant layout . . .



***DEPARTMENTALIZE* with Wipco Wire Partitions**

WIPCO standard, reusable wire partitions are the efficient, low-cost answer to plant layout. A rigid wall of tough, machine-woven steel wire, WIPCO enclosures protect against theft . . . loss . . . and permit unrestricted air circulation and ventilation. Available in standard sizes, WIPCO enclosures are re-usable—easily erected by your own men . . . easily disassembled and reinstalled in other locations. WIPCO enclosures are economical to maintain, and promote safe, orderly housekeeping in the plant. They are the efficient, economical answer to plant layout problems.

Write today for Information Bulletin No. 55.
WIRE AND IRON PRODUCTS INC.
1727 SIXTEENTH STREET • DETROIT 16, MICHIGAN

For more details circle NED-96 H7 on enclosed inquiry slip

You Can Hold Temperatures plus or minus 1/2° F.

with existing temperature control

GORDON XACTLINE

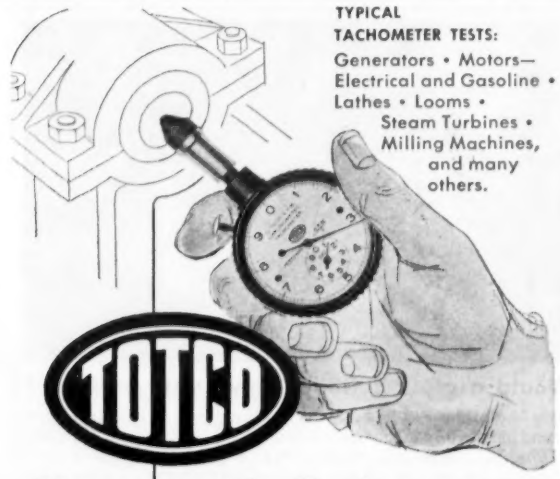
All the advantages of such precision temperature control can be yours—with your present pyrometer control—simply by adding a Gordon Xactline to your control circuit. Hundreds of applications prove its reliability.

Xactline is entirely electrical—not mechanical. Operation is sure and quick permitting on-off cycle as short as three seconds. It's automatic, too, no adjustments or coordination are ever needed. And, the installation is easy—you can do it yourself. The compact unit can be placed anywhere that is convenient, flush or wall mounted, and only six connections are required to place the instrument in operation. Why not look into its possibilities for you, today

Ask for Xactline Bulletin. 6208

CLAUD S. GORDON COMPANY
Manufacturers • Engineers • Distributors
621 West 30th Street, Chicago 16, Illinois
2013 Hamilton Avenue, Cleveland 14, Ohio

▲ For more details circle NED-97 H7 on enclosed inquiry slip ▲



TYPICAL TACHOMETER TESTS:
Generators • Motors—Electrical and Gasoline • Lathes • Looms • Steam Turbines • Milling Machines, and many others.

TOTCO

Chronometric Tachometers

BUILT TO NAVY SPECIFICATIONS, Totco Tachometers measure with *guaranteed* accuracy.

PRECISION MANUFACTURE, EXCLUSIVE DESIGN, STURDY CONSTRUCTION insure trouble-free service, long life. Built-in timing mechanism.

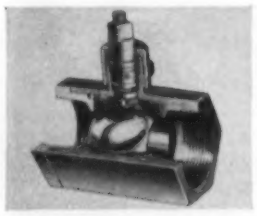
ABSOLUTE GUARANTEE for one year against defects in material and workmanship.

Guarantee
ACCURACY
To $\frac{1}{10}$ of 1%

TECHNICAL OIL TOOL CORPORATION
Manufacturers of Precision Instruments
1057 North La Brea Avenue, Los Angeles 38, California

▲ For more details circle NED-98 H7 on enclosed inquiry slip ▲

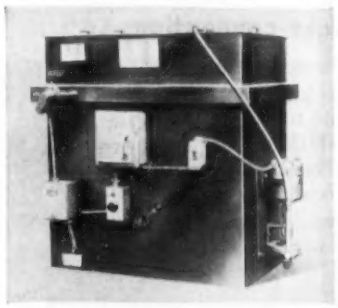
VACUUM BALL VALVES
in 1/4 to 6-in., quarter-turn models



Manually or air motor operated models in sizes from 1/4 to 6 in. are available in line of high vacuum ball valves. They can be furnished in bronze, aluminum mild steel, 303 or 316 stainless steel or polyvinyl chloride. Valves will hold vacuum in either direction and are light and compact for mounting in any position. One-quarter turn of stem provides rapid opening and closing, and allows precise throttling. Dirt in the system can be tolerated because of wiping action of the seals on the ball surface. Prices range from $30 to $450. Made by **NRC Equipment Corp.**, Dept. 29NR, 160 Charlemont St., Newton Highlands 61, Mass.

▲ For more details circle NED-100 H7 on enclosed inquiry slip ▲

VAPOR DEGREASER
cleans 600-900 lb of steel per hour



Improved Aircon model 75 vapor degreaser is supplied as a complete unit, with low level thermostat control and water flow interlock which prevents boil-out due to water supply failure. Unit is electrically fired on 220 or 440 v. Working area of 38 x 22 in. and vapor depth of 24 in. enables unit to clean 600 to 900 lb of steel per hour. Suitable for trichlorethylene solvents, unit requires 16 gal in boiling sump and 24 gal in storage. Water consumption is 30 gph. It is constructed of heavy gage steel with rust inhibitive interior coating and has a 1/4-hp motor, centrifugal pump and manual spray lance. Made by **Armstrong & White, Inc.**, Aircon Div., 138 Freeport Rd., Cheswick, Pa.

▲ For more details circle NED-101 H7 on enclosed inquiry slip ▲

STUD DRIVER
has small diameter

Studs can be driven in limited space with this Mustang stud driver because of its small diameter. Tool can be adjusted for various lengths of grip on the stud without using wrenches or tools. Projection heights vary only 0.002 to 0.003-in. Two sizes for hand or power use have maximum capacities of 3/8 and 9/16-in. studs. Several female adapters with various size threads are available for use with tool. Made by **Titan Tool Co.**, Dept. X, Main St., Fairview (Erie County), Pa.

▲ For more details circle NED-102 H7 on enclosed inquiry slip ▲

37 STAINLESS AND SUPER ALLOY ANSWERS TO CORROSION PROBLEMS IN TUBING AND PIPE

Standard Stainless Types

302	310	321
304	316	347
304L	316Cb	348
309S	316L	430
309Cb	317	442
309SCb	317L	443

Super Corrosion-Resistant Types

Carpenter Stainless No. 20Cb
Carpenter 7Mo
Carpenter Alloy B
Carpenter Alloy C
Titanium 55 and 70

Special-Purpose Types

Zirconium	Types 201 and 202
Zircalloy	Armco 17-7PH
19-9 DL	Titanium Alloys
HiMu 80	Haynes No. 25 (L-605)
N-155	Hastelloys F and X
Invar	A-286

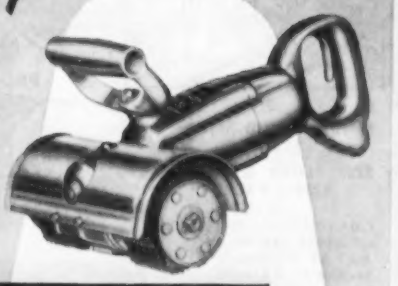
Draw on this wide selection of Carpenter stainless, super-resistant, and special-purpose Tubing and Pipe for *service-proved, cost-saving* solutions to all corrosion problems in your plant or products you make. Carpenter quality and uniformity save time and money. Round and special shapes for pressure, mechanical, structural, sanitary, and other needs. Tubing sizes to 4½" O.D., 35 to 9 BWG, in wide variety of surface finishes. Schedules 5 and 10 pipe to 4", Schedule 40 to 2". Prompt service and technical help from distributors in over 40 cities. Request *Selecting and Buying Guide* Bulletin T.D. 120.

MEMBER
The Carpenter Steel Company
Alloy Tube Division, Union, N. J.
Export Dept.: The Carpenter Steel Co., Port Washington, N. Y.—"CARSTEELCO"

Carpenter
Stainless Tubing & Pipe

▲ For more details circle NED-99 H7 on enclosed inquiry slip ▲

Chip Away



SCALE
RUST
PAINT

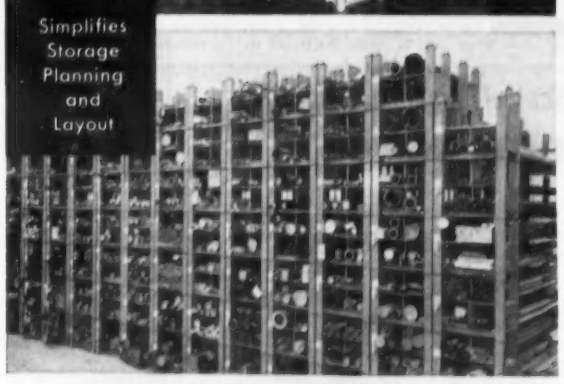
AURAND
CLEANING TOOLS
ELECTRIC OR PNEUMATIC MODELS

Surfaces are cleaned quickly with AURAND on the job. Hardened steel cutters zip away stubborn accumulations from iron, steel, brick, concrete. Adjustable depth shoe protects surface . . . assures uniform cleaning. No special skill required. Renewable cutter heads. Two sizes in both electric and pneumatic models. Lightweight.

Write Dept. 14 for complete details

AURAND MFG. & EQUIPMENT CO.
1210 Ellis St., Cincinnati 23, Ohio

▲ For more details circle NED-103 H7 on enclosed inquiry slip ▲



These plastic miniatures are actual 8-to-1 scale models of Jarke Mini-Module pre-fabricated stock storage racks. They nest into each other and can be set up on a desk top, in various ways, to determine the most efficient storage method, before actually re-arranging the stock room itself. Designed to show you the advantages of Jarke Modular Storage Systems, these handy units will save you time and labor when planning or revising storage of bar, rod and pipe stock.

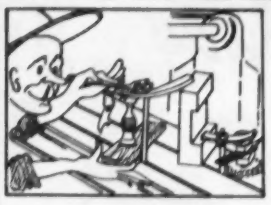
Send Coupon For Your FREE Set Now!

JARKE MANUFACTURING COMPANY Dept. NED
5407 N. Broadway, Chicago 40, Illinois

☐ *Please send Free set of Miniature Mini-Modules. No obligation.*

YOUR NAME _____ TITLE _____
COMPANY NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

▲ For more details circle NED-104 H7 on enclosed inquiry slip ▲



MAKESHIFT SETUPS CAUSE

PROFITS GO DOWN THE DRAIN

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- JIG FEET (3 TYPES)
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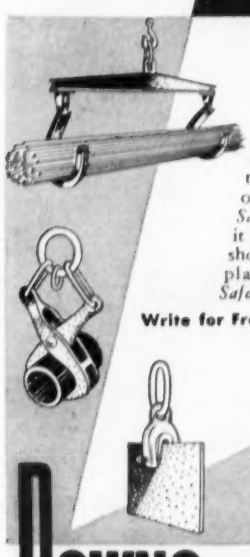
For more details circle NED-105 H7 on enclosed inquiry slip

DOWNS SAFETY GRABS ...GRIP ANYTHING!



FOR CRANES AND HOISTS...

Material lifting equipment will do more work—faster, easier—when you have the proper "grabs" for every type of load. No matter what your hoists are handling—pipe, rails, drums, plate or structural steel, stone, timber, boxes or odd-shaped objects of any description—there's a DOWNS *Safety* Grab that will enable you to do it faster, easier *and* safer. Learn new short cuts to greater efficiency for YOUR plant with DOWNS' *complete line* of *Safety* hoist grabs!

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For more details circle NED-106 H7 on enclosed inquiry slip

Scalpel? Hammer? Chisel?

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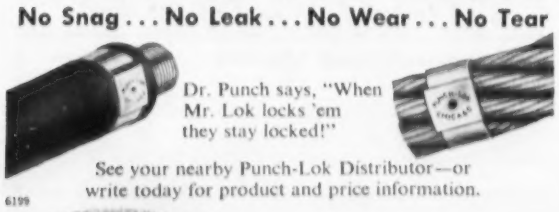
PUNCH-LOK HOSE CLAMPS

No Snag . . . No Leak . . . No Wear . . . No Tear



Dr. Punch says, "When Mr. Lok locks 'em they stay locked!"

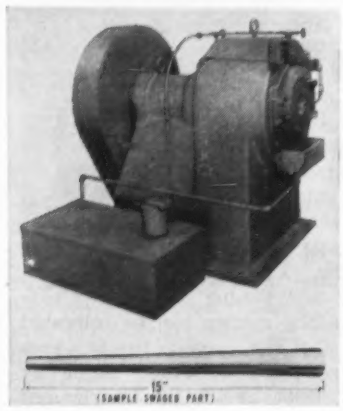
See your nearby Punch-Lok Distributor—or write today for product and price information.

6199

PUNCH-LOK Company Dept. A, 321 N. Justine St., Chicago 7, Ill.

For more details circle NED-107 H7 on enclosed inquiry slip

SWAGING MACHINE
forms 15-in. long tapers on tubing



Production of long tapered tubular products such as tubular furniture legs is facilitated by this model 4½F swaging machine. It will develop tapers up to 15 in. long on up to 2¼-in. diameter tube in a single pass at a production rate up to six per minute. This includes welded and seamless tubing of ferrous and nonferrous materials. Work has fine finish. Made by **Fenn Mfg. Co.**, 99 Fenn Rd., Newington, Conn.

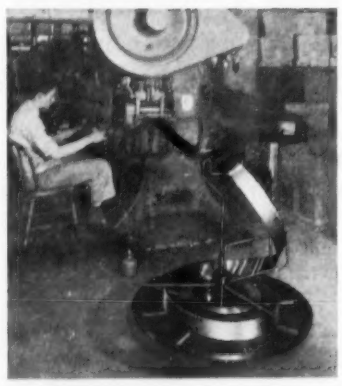
For more details circle NED-108 H7 on enclosed inquiry slip

CONDUIT FITTINGS
form liquid-tight connections

Flexible liquid-tight conduit and rigid conduit can be joined readily with this liquid-tight fitting. Having a female hub, it is merely tightened on the threaded end of rigid conduit, and other end is slipped over flexible conduit and nut is tightened. Integral nylon ring forms liquid-tight seal and is unharmed by corrosive liquids. Sizes range from ⅜ to 1¼ in. Made by **Thomas & Betts Co.**, 24 Butler St., Elizabeth, N. J.

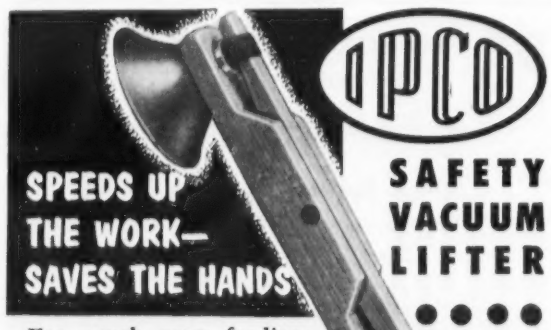
For more details circle NED-109 H7 on enclosed inquiry slip

AUTOMATIC STOCK REELS
improved to hold coils to 300 lb



Heavier base casting and platen are improvements which enable this automatic stock reel to carry coils up to 300 lb. The solid platen permits application of cutting lubricant to the stock as it lies on the platen, rather than by stock oiler to uncoiled stock. Coil need not be centered, and the reel will not tip. Natural spring of stock rotates the platen, and the loop eliminates feed slippage, kickback or overrun. Made by **Jaco Devices, Inc.**, 95 High St., Hingham, Mass.

For more details circle NED-110 H7 on enclosed inquiry slip



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For punch press feeding, positioning blanks in stamping machines and die presses, separating or transferring sheets from piles or stacks . . . all non-porous materials . . . flat or curved surface . . . lifts and holds securely. Releases instantly by depressing thumb lever.

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IPCO Safety Equipment for all Industries
INDUSTRIAL PRODUCTS COMPANY
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For more details circle NED-111 H7 on enclosed inquiry slip

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What you need—we've got right now. See for yourself:

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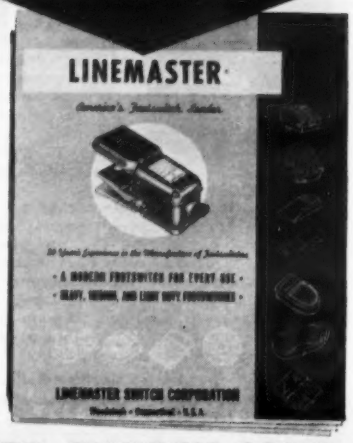
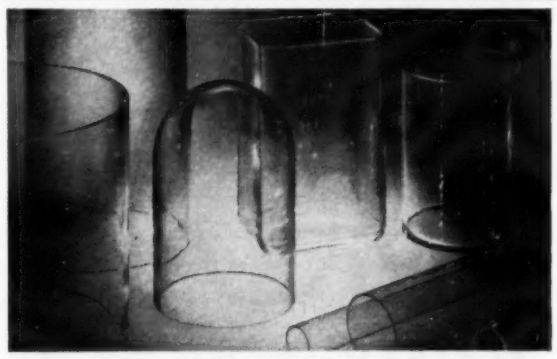


LINEMASTER SWITCH CORP.
424 Woodstock Terrace, Woodstock, Connecticut

For more details circle NED-112 H7 on enclosed inquiry slip



Would a glass cylinder solve your problem?

Any one of these cylinders which we make of PYREX or VYCOR brand glasses might be your solution to a long-sustained problem.

Physical properties, briefly: PYREX glass No. 7740 is heat resistant, chemically stable, mechanically strong. VYCOR glass No. 7900 (96% silica) resists heat to 900° C., is excellent chemically, has good mechanical strength.

Select your size and type

PYREX brand glass

Open End Cylinders—Tubing from 3 mm. to 7 in. O.D. x 48 in. max. length. Mold blown from 3 to 23½ in. O.D. x 36 in. max. length.

Jars—Flat, semi-round and round bottoms—from 5 to 23½ in. O.D. x 36 in. max. length.

VYCOR brand glass

Open End Cylinders—Tubing from 6 mm. to 64 mm. x 36 in. max. length. Mold blown from 3 in. O.D. x 30 in. long to 6 in. O.D. x 25 in. long.

Jars—Round bottom from 3 in. O.D. x 30 in. long to 6 in. O.D. x 25 in. long. Flat bottom, in a variety of sizes of round, square and rectangular shapes.

For complete information please write Plant Equipment Sales Dept.

CORNING GLASS WORKS
56-8 Crystal Street, Corning, N.Y.
Corning means research in Glass

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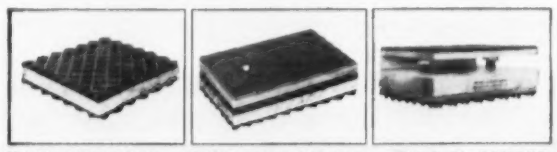
Exclusive...

New Features of Machinery Mountings Cut Your Equipment Installation Costs

Buy only the features you actually need in machinery mounting with Korfund Elasto-Rib, the combination neoprene and cork pad, now available in 3 forms. Each design made to solve specific mounting problems at lowest cost. Elasto-Rib's all directional, non-slip construction prevents machine "creeping," eliminates bolting to floor. You'll find Elasto-Rib products pay for themselves by speeding machinery installation, cutting installation costs. Vibration and noise control, yours as a bonus.



ELASTO-RIB PADS: Lowest cost form. Easily cut from sheets on job site.

TYPE EU DAMPER: Non-skid load distributing top plate on Elasto-Rib permits installation under small machine legs, or with existing leveling bolts.

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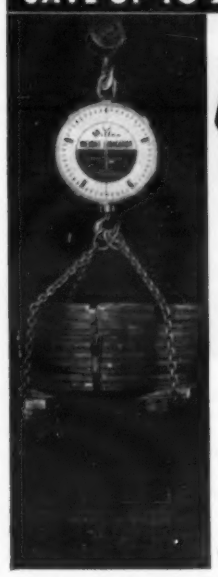
SAVE UP TO 22% ON LABOR COSTS



Compact
Low-Cost
DILLON
Weight Indicator

Picking materials up, moving them to a scale, setting them down and then picking them up again means *double* handling and greatly increased operational costs. With the DILLON Weight Indicator, loads are checked *on the spot* the instant they are lifted. Accuracy is guaranteed to be within ONE division or less at any point on the dial. Adjustable for large tare loads. 16" dia. dial. Swivel hook. Accidental overload and shock protected. 6 capacities from 0-250 pounds up to 0-5,000 pounds. Portable—weather-proof—dust-proof. Each unit checked with certified dead weights. Extreme utility at LOW cost!

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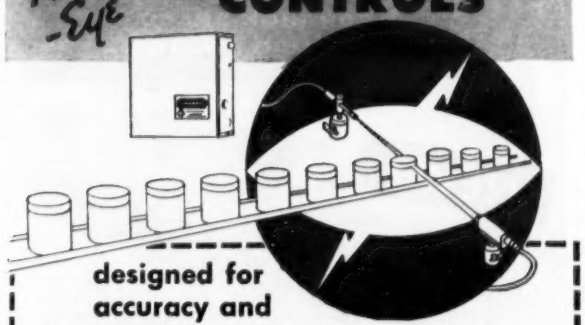
"suburb of Los Angeles"

For more details circle NED-115 H7 on enclosed inquiry slip

Robot-Eye PHOTO ELECTRIC CONTROLS



designed for accuracy and dependability where it COUNTS!

ROBOT-EYE Photo Electric Controls incorporate many of the newest and most advanced features of electronic design and component miniaturization, for greater efficiency and versatility of application.

THESE ROBOT-EYE FEATURES MEAN A HIGHER STANDARD OF OPERATION:

- Light and cell unit—swivel mounted for easy installation.
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- Cell unit with cadmium sulphide cell has greater life and sensitivity.
- Simple plug-in provision in amplifier for light and cell unit.
- Light source utilizes low voltage bulb, operating below rated voltage for increased bulb life.
- Unit will follow counting operations up to 600 per minute.
- Robot-Eye unit works from either direct beam; reflection from object or mirror reflection.

MODEL RE-3 $65.00
MODEL REC-36 with 6 digit reset counter $88.00

For complete information write to: Dept. NED-P2-8

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DIVISION OF HEAT-TIMER CORPORATION
657 BROADWAY, NEW YORK 12, N.Y.

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WET-DRY VACUUM CLEANERS

- clean everything from floor to ceiling
- do the job quickly, easily, efficiently
- and slash maintenance costs!

DIFFERENT SIZES
TO FIT
EVERYONE'S NEEDS

WRITE FOR FREE BROCHURE
showing the complete line and the many new efficiency features

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Authorized Sales Representatives and Service Branches in Principal Cities
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For more details circle NED-117 H7 on enclosed inquiry slip

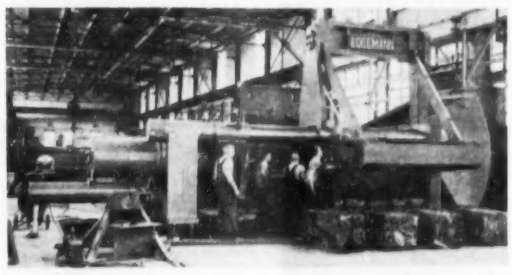
FIVE-DRAWER OVEN
features mechanical convection

Power-O-Matic fully automatic control of wattage proportional to temperature and work load is incorporated in this heavy duty five-drawer oven. The horizontal air flow mechanical convection unit has automatic heat recovery, Fiberglas insulation and control within ±1° F over the entire 100 to 400° F range. Five individual sliding, nontilting drawers measure 20 x 18½ x 5 in. Each can have auxiliary shelving. Operation is on single or three-phase 230-v 50-60-cycle ac. Made by **Blue M Electric Co.**, 138th & Chatham St., Blue Island, Ill.

For more details circle NED-118 H7 on enclosed inquiry slip

SCRAP PRESS
compresses extremely dense bales in the 20 x 7 x 5-ft press box

Press box of this Logemann model 4000-P scrap press measures 20 x 7 x 5 ft. Compressed bales measure 24 x 24 in. by a variable third dimension



which is determined by character and quantity of scrap charge. First or gathering ram compresses load from 20 ft to 2 ft at the front end. Intermediate side ram moves across width of the box from 7 to 2 ft. Finishing ram moves upward for vertical dimension, completing an extremely dense bale, ready for remelting.

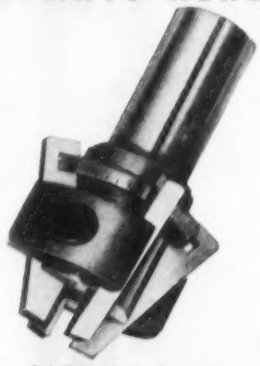
Two 150-hp pumps generate the hydraulic pressure for press-ram operation, while three smaller pumps, driven from a 75-hp motor, operate the press cover and loading hopper attached to the side. Hopper can be filled with miscellaneous scrap while press is making a bale. Ram valves are operated by compressed air and are easily controlled from a remote stand through a bank of switches and pushbuttons. Test bales shown weigh from 1660 to 2280 lb, heaviest of which comprises a large unburned auto body with frame, axles, etc. Made by **Logemann Brothers Co.**, 3160 W. Burleigh St., Milwaukee 45, Wis.

For more details circle NED-119 H7 on enclosed inquiry slip

KUTMORE
ADJUSTABLE
HOLLOW MILLS

PRECISION STARTS HERE

Any combination of . . . turning . . . tapering . . . facing . . . chamfering . . . trepanning in one pass. Exclusive micrometer adjustment feature for rapid set-up. Cutting capacities from 1/32" to 2" diameter in standard stock.



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Our engineering department is at your disposal on your hollow mill problems.

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ROCHESTER 5, N. Y.

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PORTELVATOR®
The Handy HAMILTON Portable, Elevating Table

5607

NEW DEVELOPMENTS PROVIDE EASY MOVEMENT of SHEETS PLATES BARS TUBES PIPES TOOLS DIES FIXTURES ALL COMPACT HEAVY LOADS

MORE SERVICE for LESS MONEY than ANY Other Unit of Equipment

Four-Wheel and Six-Wheel Models

4 point support
3 table surfaces

NEW, FREE LITERATURE TELLS ALL! Ask for Bulletin P-5607. Address The Hamilton Tool Company, 901 Hanover Street, Hamilton, Ohio.

UNOBSTRUCTED PERIMETER • WORK FROM ANY SIDE

IT'S A Hamilton Tool
USE IT WITH CONFIDENCE

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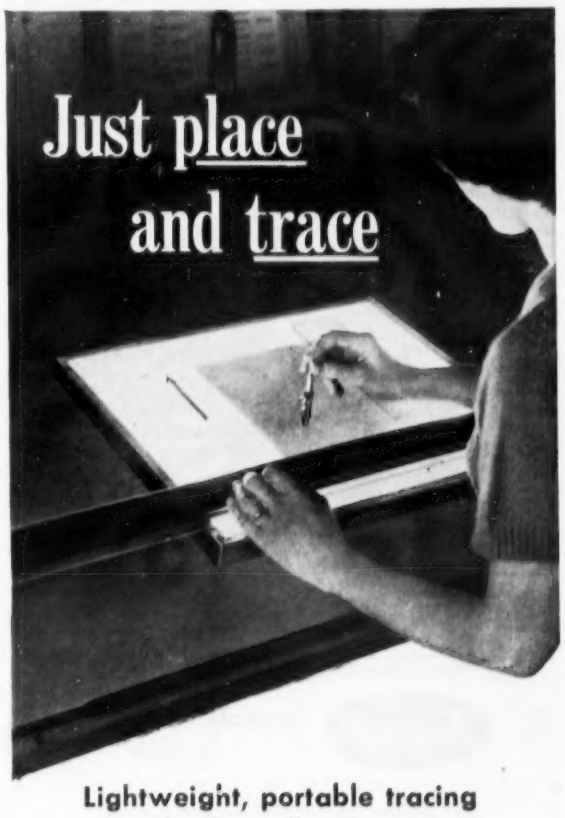

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Now you can trace *right at the drawing board*, and save precious minutes with PORTA-TRACE®—the thin, lightweight tracing box that *comes to you*.

Simply pick it up, place it on your board, flick a switch and you're ready—in seconds!

Only 1 7/16 inches deep, PORTA-TRACE can actually be used under straight edge of your drafting table! Its flush top permits use with drawings larger than unit itself. Plexiglas top; stainless steel frame. Available in four sizes up to 24" x 36".

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Products for Design

A Division of General Aniline & Film Corporation
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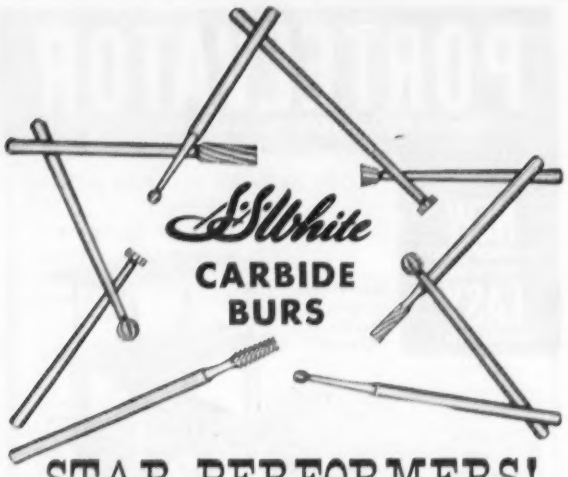


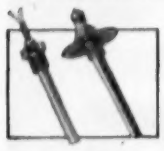
STAR PERFORMERS!

These burs are outstanding for their long life . . . economy . . . their ability to cut fast and cool. Made in two parts: cutting heads of tungsten carbide, necks and shanks of steel. S.S. WHITE CARBIDE BURS are available in a wide range of sizes and shapes for straight and right-angle handpieces. Write for Catalog DB.

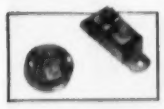
THE S.S.White INDUSTRIAL DIVISION
10 East 40th Street, New York 16, N. Y.
Western Office: 1839 West Pico Blvd., Los Angeles 6, Calif.
For more details circle NED-123 H7 on enclosed inquiry slip

Maximum Temperature Control In A Minimum Of Space

These miniaturized temperature controls utilize the famous Fenwal THERMOSWITCH® principle. The outer shell is the activating element. That means short heat transfer path, built-in temperature anticipation, control stability and inherent thermostat sensitivity of less than 1°F. That's why they're ideal for such applications as aircraft, guided missiles, antennas, electronic equipment, radar, motors, computers, wave guides, crystal ovens, etc.



MIDGET. Shell is ¼" O.D. and is highly sensitive to changes over entire area. Single wire and two wire types; wide range from −50°F to 500°F; units which either make or break on temperature rise for control of gases, solids, liquids.



MINIATURE. Control within 2°F to 6°F is typical, even under 5G acceleration. Fully adjustable ranges of −20°F to 200°F or −20°F to 275°F. Hermetically sealed units −20°F to 200°F.

Get new, helpful facts on small-space temperature control and detection. Write for free bulletin MC-124, **Fenwal Incorporated, 88 Pleasant Street, Ashland, Massachusetts.**

Fenwal Controls Temperature . . . *Precisely*

For more details circle NED-124 H7 on enclosed inquiry slip

A Contamination-Free Product

WITH OPW line strainers

Protect pump, meter, product

Be sure! Install OPW Line Strainers in any pipe line system for a cleaner product. Tight fit of cage and screen assures all product passing through strainer. Screen areas are many times pipe size for full flow. The simplicity of screen removal, cleaning and replacing facilitates regular, periodic checkup in the shortest possible time. WRITE FOR FREE BULLETIN F-36

JORDAN CORPORATION
INDUSTRIAL SALES DIVISION OF OPW CORP.
6013 Wiehe Road
Cincinnati 13, Ohio
ELmhurst 1-1352

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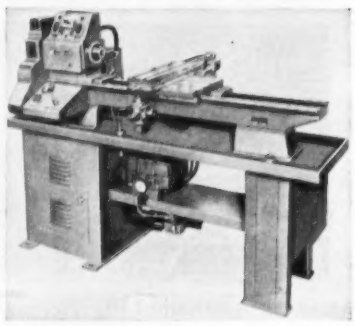
FIRE EXTINGUISHING SYSTEMS packaged for flammable liquid areas

Industrial areas containing normal flammable liquids can be equipped with packaged carbon dioxide fire extinguishing systems in sizes ranging from 10 to 300 lb of CO_2. Also available are local and remote manually operating actuating controls with the larger automatic systems. Packages contain all components for an automatic system which will protect room of 140 to 6000 cu ft. Pipe and fittings for each size system are packaged separately. Accessories include remote control pull boxes, alarms operated by discharging gas and pressure-operated trips and switches used to close doors and windows and turn off electrical equipment. Made by **Walter Kidde & Co.**, Dept. A, 675 Main St., Belleville 9, N. J.

For more details circle NED-126 H7 on enclosed inquiry slip

BORING & TURNING MACHINE for simultaneous or continuous sequence machining operations



This Hydra Cycle semiautomatic turning and boring machine will perform several machining operations simultaneously or in continuous sequence to close tolerances. Operations include turning, boring, facing, grooving, chamfering, beveling and cut-off. Illustrated model has hydraulically operated cross slide mounted on a hydraulically operated longitudinal table.

Four combination table-cross slide cycles are selected by dial on the control panel. Simple block tool holders, carbide insert bits and standard boring bars will handle most work set-ups. Three other models have bed mounted cross slide, bed mounted table, and bed mounted cross slide and table.

Feed of table and cross slide are infinitely variable from 3/16 to 60 ipm. Hardened spindle nose is tapered key type L-00 and has 1⅜-in. bore. Power is supplied by a two-speed 2-hp motor. Swing is 12¾ in. over bed and 4 11/16 in. over cross slide. Travel is 5 in. for cross slide and 8 in. for table. Bed is 59 in. long with 40 in. right of headstock. Made by **Atlas Press Co.**, Clausing Div., 2323 N. Pitcher St., Kalamazoo, Mich.

For more details circle NED-127 H7 on enclosed inquiry slip

IMPERIAL HI-SEAL

The flareless tube fitting that makes a positive butt-joint

The most important advance in tube fittings in 20 years!

- No need to spring tubing
- Closer tube bends
- Foolproof assembly
- No flaring or threading
- Withstands higher pressures
- Available in steel or stainless steel
- Meets J.I.C. and A.S.M.E. standards; listed by UL
- Write for Bulletin 3061

THE IMPERIAL BRASS MFG. CO., 510 South Racine Avenue, Chicago 7, Ill.
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IMPERIAL Industry's Most Complete Line of Tube Fittings and Tubing Tools

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MOVE HEAVY PRESS DIES EASIER WITH SPECIAL

Weld-Bilt WINCH-EQUIPPED ROLLER TOP HYDRAULIC LIFT PLATFORM

"Weld-Bilt" PRODUCTS

Those extra heavy dies move on and off your big presses with surprising speed and little effort—with this new Weld-Bilt Hydraulic Lift Platform. Just raise the platform to proper press level, secure the cable hook to the die, push a button—and the winch does the work.

Built to handle 20,000 lbs., this new unit, 48" x 96" long, has two sets of conveyor rollers, with a special motor driven winch mounted on one end. Platform is raised or lowered by means of two-way foot pedal control operating hydraulic pump and motor.

Steel wheels and swivel front casters, plus tow-bar, permit easy movement and positioning of the table.

You, too, may have a lift-or-move problem in heavy equipment. Weld-Bilt engineers can offer a profitable solution. Write, we'll be glad to supply details.

WEST BEND EQUIPMENT CORP.
MATERIALS HANDLING ENGINEERS
311 Water Street, West Bend, Wisconsin

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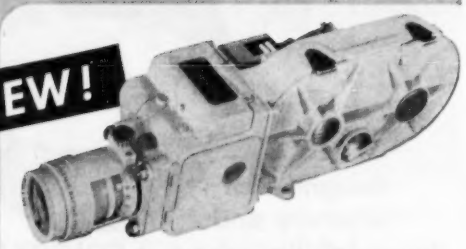
FOR HIGH SPEED MOTION PICTURE PHOTOGRAPHY

NEW!



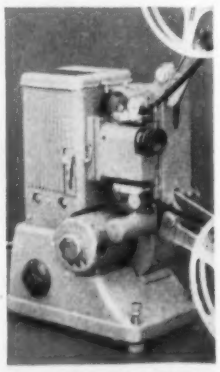
DAYLIGHT LOADING FASTAIR . . .
HIGH SPEED MOTION PICTURE MISSILE CAMERA
This 16mm Camera accepts standard daylight loading spools in the *new* 50' and 100' magazines . . . will withstand extremely high "G" loads in acceleration, vibration or shock. A full complement of lenses is now available.

NEW!

100' FASTAX COMBINED MOTION PICTURE AND OSCILLOGRAPHIC CAMERA
. . . where economy is a factor. Features 100' daylight loading spools . . . speed ranges from 150 to 8,000 pictures per second . . . can take pictures or oscillographic recordings simultaneously or independently . . . three cameras in one.

NEW!

8mm or 16mm MOTION PICTURE ANALYSIS PROJECTORS



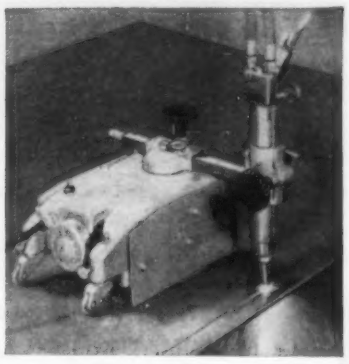
. . . for study and analysis of subjects filmed at high speeds. Projection without flicker as slowly as 2 frames per second. Normal projection (16 f.p.s.), frame by frame or still picture projection may be shown.

WRITE for more detailed information. Inquiries welcome.

FASTAX DIVISION
WOLLENSAK
OPTICAL COMPANY
Rochester 21, N.Y.

For more details circle NED-130 H7 on enclosed inquiry slip

SAVE TIME AND MONEY



with the OXWELD CM-45 Cutting Machine

YOU SAVE TIME because the portable (29 lb.) OXWELD CM-45 will do your cutting, beveling, flame-treating, and even special welding jobs far faster than manual operations. This means *more* production in *less* time.

YOU SAVE MONEY because the CM-45 cuts gas consumption and assures superior cutting results. Rejects and costly finishing operations are eliminated.

Start saving today. Call your nearby LINDE Office for a demonstration, or write for OXWELD Catalog F-4487.

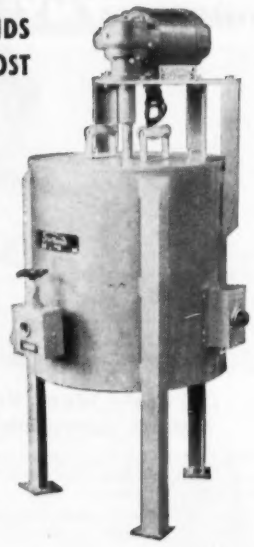
LINDE COMPANY 30 East 42nd Street New York 17, N. Y.

DIVISION OF UNION CARBIDE CORPORATION

"Linde" and "Oxweld" are trade-marks of UCC.

For more details circle NED-131 H7 on enclosed inquiry slip

MELT COMPOUNDS AT LOW COST



This Sta-Warm compound melter, model Y, with selective temperature control, heated gate valve and power driven agitator makes simple work of melting a wide variety of industrial compounds *economically, uniformly, dependably.*

Capacities from 5 to 2000 gal. Voltages to 550-v. Widely used and preferred because of its high efficiency in heating critical materials without burning and also without leaving cold unheated lumps to clog outlet.

Ask for complete catalog literature today on this and on other Sta-Warm melting equipment. No obligation.

"If You Can Wrap a String Around It, Sta-Warm Can Heat It for You."

Sta-Warm ELECTRIC CO.
130 N. CHESTNUT ST., RAVENNA, OHIO
Subsidiary of ABRASIVE & METAL PRODUCTS CO.

For more details circle NED-132 H7 on enclosed inquiry slip

OFF-THE-SHELF INSTRUMENTATION

When you need an instrument fast, it pays to take advantage of Fischer & Porter's off-the-shelf instrumentation plan. Stock shelves in Hatboro, Chicago, Houston, and Los Angeles carry an ever increasing selection of quality F & P flowmeters, transmitters, indicators, recorders, controllers, and chlorinators ready for immediate delivery. Complete prices, specifications, and availability data are in Catalog 2, free on request. Write Fischer & Porter Company, 3587 County Line Rd., Hatboro, Pa.

FISCHER & PORTER CO.
Complete Process Instrumentation

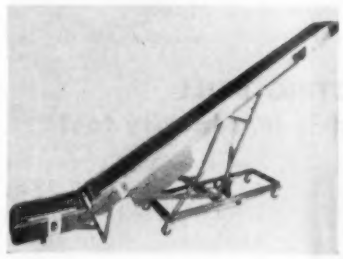
For more details circle NED-133 H7 on enclosed inquiry slip

INSPECTION PLATFORM of aluminum for tank cars

Used in conjunction with an Alco-Lite straight or extension ladder, this inspection platform facilitates checking tank cars. Safety is assured by nonskid aluminum floor, guard rail around sides and back, and a chain which hangs across the entrance. Bolted to ladder, this all-aluminum assembly is light weight and easy to handle. It is easy to clean. Since it is nonsparking, it is safe to use around inflammable materials. Made by **Aluminum Ladder Co.,** Dept. 5N, Worthington, Pa.

For more details circle NED-134 H7 on enclosed inquiry slip

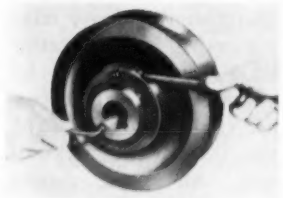
PORTABLE BELT CONVEYOR in 10 to 20-ft lengths



Trojan series A aluminum portable belt conveyor for unloading, transferring, boosting and stacking operations can be adjusted for height and angle of incline by a finger touch. Available in 10, 12, 14, 16, 18-ft lengths, conveyor operates both forward and reverse. Nonslip, 12-in. wide belt safely elevates bags or boxes up 30-degree inclines without cleats. Cleats are available for steeper angles. Frame and removable undercarriage fold easily for compact shipment and storage. All moving parts are safely shielded. Quick-Eez coupling affords fast setup in conjunction with other types of conveyors. Conveyors up to 16 ft have ½-hp motor, whereas 18 and 20-ft units have ¾-hp motors. Belt speed is 55 fpm. Made by **E. W. Buschman Co.,** 4482 Clifton Ave., Cincinnati 32, O.

For more details circle NED-135 H7 on enclosed inquiry slip

VARIABLE SPEED DRIVE uses adjustable and fixed sheaves



Variable speeds in ratios from 2:1 to 3:1 for up to 20-hp loads can be provided by variable speed drives that consists of an adjustable pitch motor sheave, a fixed companion sheave and an easy-slide action motor base. Speed settings are accomplished by loosening two locking collars on the motor sheave and turning the adjusting screw. Motor base is then set for the proper belt tension. Made by **Dayton Rubber Co.,** Dept. 72, Dayton 1, O.

For more details circle NED-136 H7 on enclosed inquiry slip

NEW LOW COST LEAK DETECTOR

NRC Model 4902 detects and locates leaks as small as 10^{-6} standard c.c. per second. It is the first commercially available halogen-sensitive leak detector to have the stability and fast recovery time needed to assure reliable results. Operates in the 80-200 micron pressure range. Readily available Freon-12 is used as tracer.

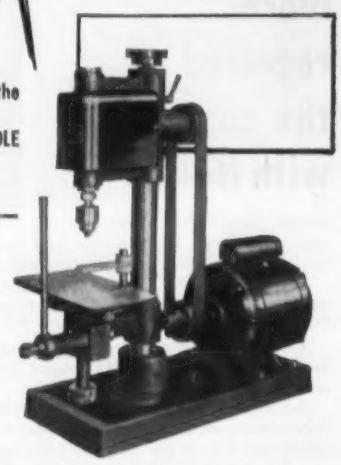
It is useful for locating leaks in vacuum and pressure vessels, as well as for such products as auto-radiators, water buckets, hydraulic systems, and hermetically sealed components and assemblies.

Write today for Bulletin LD-1
Department 29-H

NRC Equipment Corporation
160 Charlemont Street
Newton 61, Mass.
A subsidiary of National Research Corporation

For more details circle NED-137 H7 on enclosed inquiry slip

Now YOU CAN TAP PRECISION HOLES IN BRITTLE MATERIALS OR THIN SHEETS



Recent design change of the HAMILTON SUPER SENSITIVE, SMALL-HOLE PRECISION TAPPING MACHINE

Also extends capacity to:—
.034" x 120 minimum
¼" x 24 maximum

YOU will want full information about this important development!

WE WILL FURNISH IT FREE

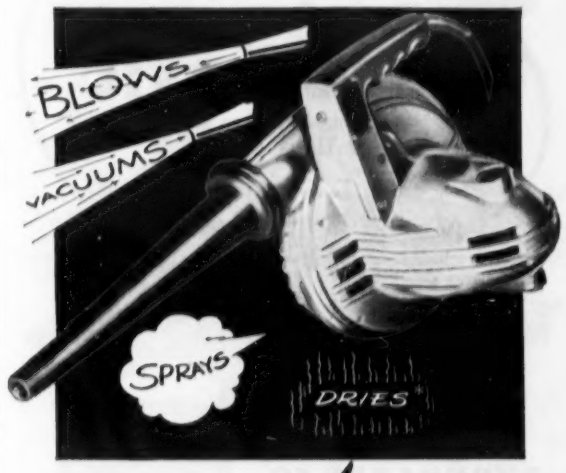
Ask for BULLETIN NO. 2464

ADDRESS
THE HAMILTON TOOL COMPANY
901 Hanover Street
HAMILTON, OHIO

IT'S A Hamilton Tool
USE IT WITH CONFIDENCE
2464

For more details circle NED-138 H7 on enclosed inquiry slip

NEW DESIGN- LONGER LIFE- LESS MAINTENANCE



New, Improved IDEAL

ALL-SERVICE CLEANER

● Air-engineered to deliver the "max" in performance and long gruelling service. New brush assembly and greater brush length increases brush life by 100%. Special pigtail terminal prevents damage to commutator even when maintenance is neglected.

Improved mounting doubles bearing life and eliminates wear on bearing seats. Bearing load is spread over an increased area to reduce wear and equalize the load. Air movement over coils and armature windings has been stepped up approximately 50% so that motor runs cool at all times.

The result: The best cleaner in its class, in performance and economy. Shown is the Heavy Duty Model, with Blower Nozzle. Complete sets of attachments for any job . . . vacuum cleaning, scrap collecting, spraying paints, oil and other liquids, even drying*

** Light Duty Model only*

3 MODELS for All Jobs
- Super powered 1-1/3 H.P. Model for heavy duty use
- 2/3 H.P. Model for medium duty needs
- 2/5 H.P. Model for lighter duty work

IDEAL INDUSTRIES, INC.
Sycamore, Illinois

IDEAL INDUSTRIES, Inc., 1032-H Park Avenue, Sycamore, Illinois

Please send me full catalog data on IDEAL Hand-Type Cleaner-Blowers.

Name _____
Company _____
Address _____
City _____ Zone _____ State _____

For more details circle NED-139 H7 on enclosed inquiry slip

Cracked cast iron block... repaired the same day with Ni-Rod "55"

When this 150-lb. pulley block cracked, operators had to choose between replacement and repair. Replacement meant delay, so they decided to try repair.

With Ni-Rod* "55" electrode, the job was finished within the day. The strong, sound weld took only 1½ lbs. of Ni-Rod "55" electrode.

Emergency repairs are easier with Ni-Rod "55" electrode. No special equipment. No special training. *Most jobs require no preheat.*

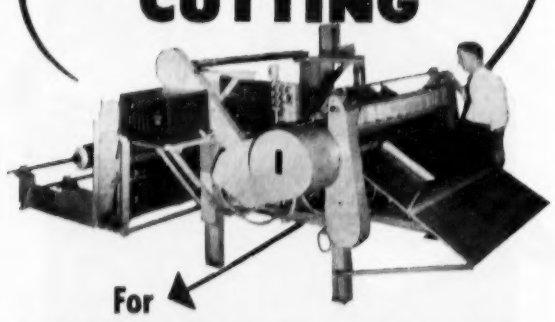
Send for folder, "Repair Cast Iron Parts Quickly and Easily." Gives many examples of successful welding with Ni-Rod "55" electrode. Circle the number below on the NED inquiry slip.

The INTERNATIONAL NICKEL COMPANY, Inc.
67 Wall Street *Registered trademark New York 5, N. Y.

INCO **Welding Products**
Electrodes • Wires • Fluxes

For more details circle NED-140 H7 on enclosed inquiry slip

HOBBS Engineers AUTOMATIC CUTTING



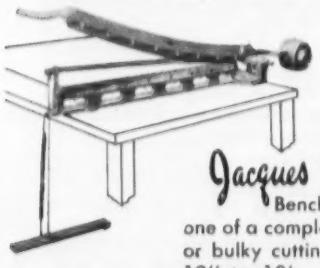
For **BURKHARDT CO., Detroit, Mich.**

The Hobbs Production Cutter shown here was specially designed for Burkhardt Co., manufacturers of loose leaf binders and similar products. This machine automatically slits and cuts leatherette, acetate and coated fabrics received from rolls, and delivers it to a stacker.

Materials up to 60" wide can be slit and cut into various widths and lengths. Production varies according to length of cut. However, in a typical operation 24" lengths are cut at the rate of 3000 pieces per hour.

If width is slit into 3 sections, production of pieces is tripled.

Accuracy is described as exceptional, with savings in materials through elimination of waste.



Jacques **HOBBS ALSO MAKES HAND SHEARS**

Bench model shown here is one of a complete line for light gauge or bulky cutting of web widths from 12" to 10' — practically all soft materials.

SEND FOR THE HOBBS ENGINEERED CUTTING BROCHURE — This brochure will help you to determine what type of cutting equipment is best suited to your requirements.

OR TELL US YOUR CUTTING REQUIREMENTS and send us a sample of your material. We'll make recommendations free of all obligations.

HOBBS MANUFACTURING CO. EST. 1885
41H Salisbury St., Worcester 5, Mass.

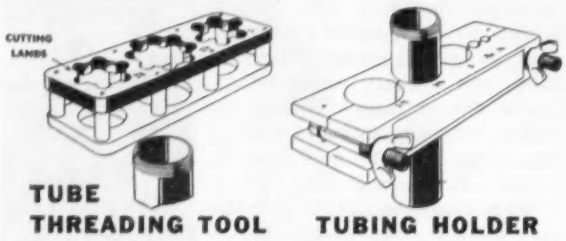
N. Y. Area Office, 821 Eighteenth Ave., Irvington 11, N. J.; Chicago Office, 549 W. Washington Blvd.; South Carolina Office, Parrott & Ballentine, 510 South Carolina Bank Bldg., Greenville; Canadian Representative, The E. V. Larson Company, 572 Queen Street, East, Toronto 2, Ont.; Cleveland Office, P. O. Box 5013, Cleveland 1, Ohio

Winders • Hand & Power Shears • Slitters • Die Presses • Corner Cutters

For more details circle NED-141 H7 on enclosed inquiry slip

THREADING TOOL & HOLDER for three sizes of brass tubing

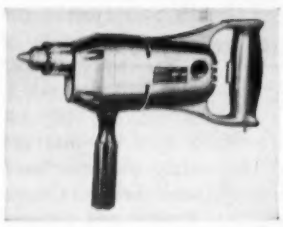
Dies that cut 27 threads per inch on 1, 1¼ and 1½-in. brass tubing are incorporated in the 3-in-1 tube threading tool. Largest die has eight cutting lands,



and the other two dies have six lands. Guide for each die insures proper alignment with tubing. Companion 5-in-1 tubing holder grips ¼, 5/16, 1, 1¼ and 1½-in. tubing in a rigid position for threading, cutting or flaring. It consists of two parts locked together by wing nuts, and is used by clamping it in a vise. Made by **J. A. Sexauer Mfg. Co.**, Dept. 39, 2503-05 Third Ave., New York 51, N. Y.

For more details circle NED-142 H7 on enclosed inquiry slip

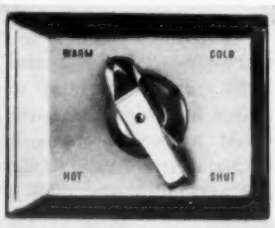
PORTABLE ELECTRIC DRILL is two-speed ⅜-in. capacity tool



Speeds of 3000 rpm for drilling up to 5/32-in. holes in steel, ⅜-in. in wood and ¼-in. in aluminum or brass and 1000 rpm for larger holes and masonry drilling are available in this two-speed ⅜-in. portable electric drill. Speed change is quick and positive with 115-v universal motor. Drill has ⅜-in. geared chuck, ball thrust and Oilite bearings. List price is $29.95. Made by **Wen Products, Inc.**, 5808 Northwest Highway, Chicago 31, Ill.

For more details circle NED-143 H7 on enclosed inquiry slip

SHOWER MIXING VALVE thermostatic unit is recessed



Completely recessed into the wall, the Recesso thermostatic shower mixing valve provides anti-scald protection by automatically shutting off the shower should the cold water supply fail. All stops, checks and strainers are concealed behind rectangular dial plate, finished in brushed stainless steel. A sweep temperature selector permits infinite control from cold to 115° F. Made by **Lawler Automatic Controls, Inc.**, Bronnex St., Mt. Vernon, N. Y.

For more details circle NED-144 H7 on enclosed inquiry slip

More horsepower-hours per dollar!

NEW! ONAN SHORT STROKE ENGINES

Model CCK, 12.9 H.P., two-cyl., gasoline-powered.

Add the powerful sales features of Onan long-life engines to your equipment at no extra cost. Designed and built for continuous service; run hundreds, *even thousands of hours* with minimum attention. Compact, smooth-running.

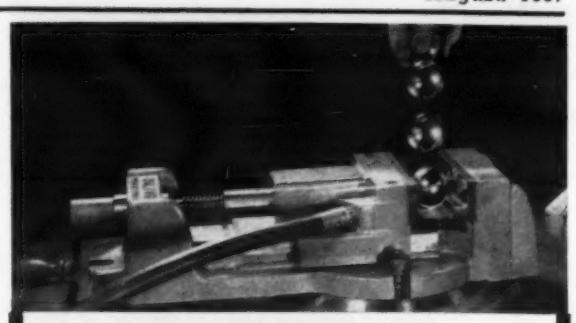
Onan air-cooled engines are today giving outstanding performance and sales appeal to equipment such as portable welders, air conditioners, truck refrigeration, pumps, etc. Build competitive advantages into your equipment with Onan long-life, air-cooled power.

THREE MODELS—**Model CCK**, 12.9 H.P., two-cylinder, gasoline-powered. **Model DRP**, 15 H.P., two-cylinder, Diesel-powered. **Model AJ** 5.5 H.P., one-cylinder, gasoline-powered.

Write for Specifications!

Onan ELECTRIC PLANTS **D. W. ONAN & SONS INC.**
3635 Univ. Ave. S. E., Minneapolis 14, Minn.

For more details circle NED-145 H7 on enclosed inquiry slip



FASTER MACHINE LOADING? MILOMATIC IS ON THE BALL!

In the time it takes a 1" steel ball to drop 6 inches, MilOmatic air powered hydraulic vises close automatically! This split second automatic clamping action is the perfect way to cut costs and increase production on high speed operations, in which efficiency depends on fast loading and unloading. You can use MilOmatics on any machine in your plant, as an automatic production fixture, and you can adapt them to any work piece with low cost jaw inserts. Get on the ball! Get the facts about MilOmatic today!

Attach this ad to your letterhead for free demonstration or new free catalog!

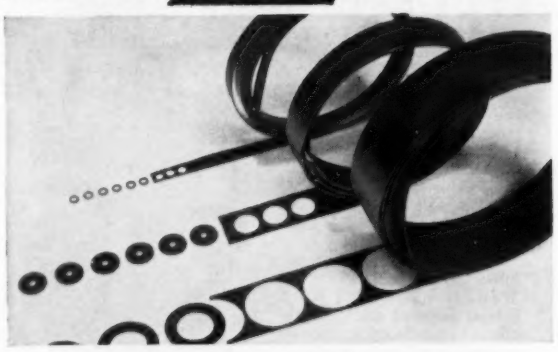
WILTON TOOL MFG. CO., INC.
Schiller Park, Illinois

NED-8

Sold By Leading Distributors The World Over

For more details circle NED-146 H7 on enclosed inquiry slip

NYLATRON® GS NYLON THRUST WASHERS



. . . Resist Wear, Reduce Noise, Provide Smooth Operation Without Lubrication

NYLATRON GS Nylon thrust washers—rapidly stamped from coiled strip—are outlasting other materials wherever there are thrust loads between metal parts.

NYLATRON GS is a molybdenum disulphide filled nylon* with lower surface friction than standard nylon 101, and higher wear resistance in many cases.

Highest quality POLYPENCO standard nylon is readily available in stock shapes of rod, strip, tubular bar, tubing and slab. Both POLYPENCO standard nylon and special nylon formulations are easily machinable. *patent applied for

Fabrication Service is available for your parts. Write to Technical Service Dept. for information.

THE POLYMER CORPORATION OF PENNA.
Reading, Penna.
Export: Polypenco, Inc., Reading, Penna., U.S.A.

POLYPENCO

POLYPENCO nylon, POLYPENCO Teflon†, NYLAFLOW® and NYLATRON® GS
†DU PONT TRADEMARK

For more details circle NED-147 H7 on enclosed inquiry slip

VOLTS? AMPS?

DON'T GUESS, GET YOUR ANSWER QUICKLY WITH THE **COLUMBIA TYPE AC-1 VOLT-AMMETER**

QUICK, EASY READINGS WITH THE COLUMBIA TYPE AC-1 VOLT-AMMETER

Save time, eliminate guesswork by reading up to 600 amperes or 600 volts with the conveniently sized Type AC-1. Simply snap jaws around electrical conductor for amperes; use safety plug in leads for volts. Convenient switch enables operator to select the following A.C. ranges: 0/12/60/120/600 amperes; 0/150/600 volts.

For use on frequencies from 25 to 400 cycles. Jaws accommodate bare or insulated conductors up to 1½" diameter, or bus bars to 2" x ½".

Write today for Bulletin AC-25

$57.50 With Voltage Leads and Carrying Case

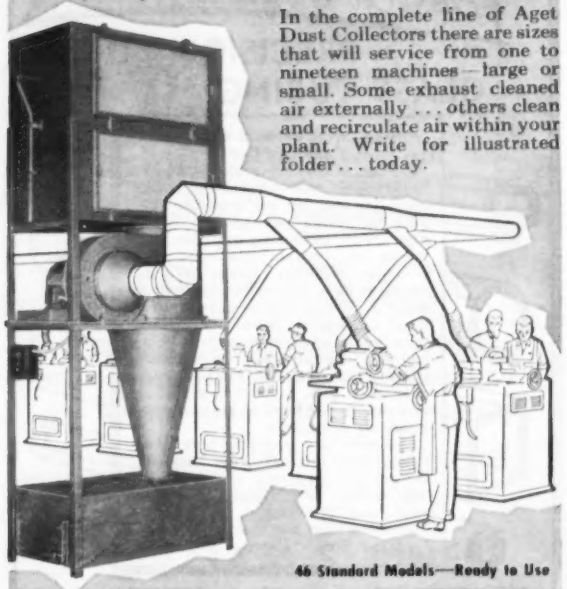
COLUMBIA **COLUMBIA ELECTRIC MFG. CO.**
4525 Hamilton Ave.
Cleveland 14, Ohio
6561-CE

For more details circle NED-148 H7 on enclosed inquiry slip

just ONE DUSTKOP STOPS DUST

heavy duty unit services up to 19 MACHINES

In the complete line of Aget Dust Collectors there are sizes that will service from one to nineteen machines—large or small. Some exhaust cleaned air externally . . . others clean and recirculate air within your plant. Write for illustrated folder . . . today.



46 Standard Models—Ready to Use

AGET manufacturing company
1396 Church Street • Adrian, Michigan

For more details circle NED-149 H7 on enclosed inquiry slip

It's so easy and costs so little to SEE how you're doing

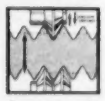
You know quickly and definitely how closely you are working to the required dimensional specifications when you use Federal Dial Indicating Gages. You see ahead of time whether you are taking off too much metal *before* you produce any scrap. You can see on the Dial Indicator just when you have obtained the correct dimension.

There's no need of spending money for more elaborate, higher priced gages except where their use is really necessary. Federal offers a big selection of gages from which you can choose the best for your purpose. Do you have our catalog?

FEDERAL PRODUCTS CORPORATION
7178 Eddy Street • Providence 1, R. I.

DEPTH GAGES

Bench Type Indicating Depth Gage Model 75B-1
Long, 2" range.



Lead errors do not affect readings. Contacts engage one thread only.

THREAD GAGES

Pitch Diameter Gage Series 45
For fast inspection of pitch diameter of threads by roller contacts. Thread lead gage is also available.

COMPARATORS

Over ten types.

Universal Dial Comparator Model 100B-20

Highly accurate. Attachments greatly extend versatility.

SNAP GAGES

Indicating Crankshaft Gage Model 1340P-40
Extremely thin, measures diameter of crankshafts where projections are large and/or closely spaced.

INDICATING MICROMETER

Federal Mikemaster Model 200P-1
always measures with same gaging pressure—provides uniform, accurate dial readings. Used as a Micrometer, or an Indicating Snap Gage.

GEAR GAGES

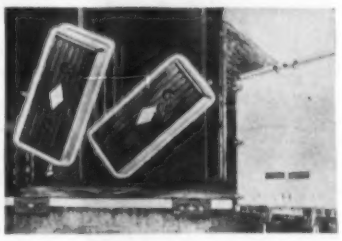
Pitch Diameter Gear Gages Series 202
Measures pitch diameter of spur gears, helical gears, splines, and chain sprockets — with either even or odd numbered teeth.

CATALOG 55G
Shows most complete line of dial indicator gages. Send for copy.

Ask FEDERAL First
FOR RECOMMENDATIONS IN MODERN GAGES . . .
Dial Indicating, Air, Electric, or Electronic—for Inspecting, Measuring, Sorting, or Automation Gaging

For more details circle NED-150 H7 on enclosed inquiry slip

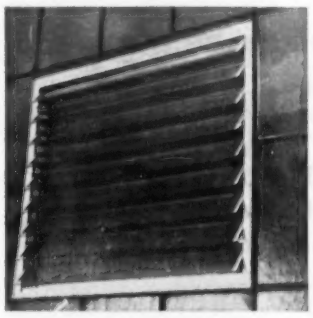
RUBBER BUMPER BLOCKS for loading docks and truck frames



Loading and receiving docks, truck frames and materials in transit are protected from damaging effects of vehicle contact by Cushioneer rubber bumper blocks. They are made in two styles: bonded to a steel plate for attachment by welding; and unbonded, for attachment with bolts. Rubber is impervious to weather, fluids and fumes. Several sizes are offered by **Castle Rubber Co.,** Box 589, Butler, Pa.

For more details circle NED-151 H7 on enclosed inquiry slip

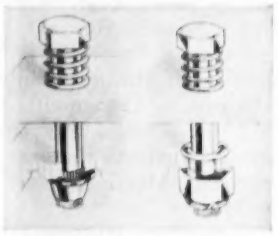
SCREENED WINDOWS jalousie type for replacement



Difficult - to - screen steel pivot windows can be replaced with aluminum jalousie windows that fit into the window openings after the pivot windows have been permanently removed. Furnished with a full screen on the inside, it can be adapted to any steel pivot, projected-out or projected-in vent, or where ventilation is desired in a stationary window. Made by **Kaufmann Window & Door Corp.,** Dept. NED, 12891 Mt. Elliott, Detroit 12, Mich.

For more details circle NED-152 H7 on enclosed inquiry slip

SELF-LOCKING CLINCH NUTS installed flush in 0.030-in. stock



Miniature self-locking clinch nuts which can be installed flush in stock as thin as 0.030-in. are intended for applications having limited space allowances for fastening and assembly. Type NCFM clinch nuts are designed with nylon locking inserts for temperatures up to 350° F, whereas type LHCFM nuts are all metal with an elliptical crown locking device for use up to 550° F. Both types require only two shank lengths for flush mounting in material ranging in thickness from 0.030 to 0.060-in., and 0.060-in. and above. Thread sizes are 2-56, 4-40, 6-32, 8-32, 10-24, 10-32, ¼-20 and ¼-28. Made by **Elastic Stop Nut Corp. of America,** 2331 Vauxhall Rd., Union, N. J.

For more details circle NED-153 H7 on enclosed inquiry slip

NEW BOOKLET AVAILABLE ON JOY LIMBEROLLER® BELT CONVEYOR IDLER

Booklet contains design and application data for those who specify and purchase belt conveyors for handling any bulk material . . . especially those with abrasion, corrosion, or lubrication problems.

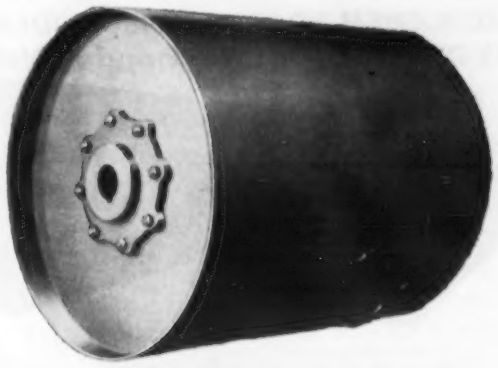
The Limberoller is a single roll idler consisting of neoprene discs molded to a flexible steel cable. The entire idler turns on its own axis. Only two bearings are used, one at either end, up out of the dirt. The flexibility of the entire idler imparts a self-cleaning action—prevents material buildup.

Many companies have received over 10 times the service life of conventional idlers and adopted Limberollers as standard for all belt conveyor operations. Write for Bulletin 161-54.

WBW L6526-161

JOY EQUIPMENT FOR ALL INDUSTRY
JOY MANUFACTURING COMPANY, OLIVER BLDG., PITTSBURGH 22, PA.
IN CANADA: JOY MANUFACTURING COMPANY, (CANADA) LTD., GALT, ONTARIO

For more details circle NED-154 H7 on enclosed inquiry slip



JEFFREY welded steel pulleys

Stocked for immediate delivery! Widely used Jeffrey crown-rolled, welded steel pulleys with interchangeable hubs for Taper-Lock bushings are now in stock, ready to ship.

Jeffrey steel pulleys are ideal for belt conveyor service where a light type pulley is desirable . . . provide maximum strength with minimum weight. Wide range of bores and diameter available. Can be furnished with formed or machined face, or rubber lagged.

For details on all types of steel, cast iron and slatted pulleys, write for Catalog 928. The Jeffrey Manufacturing Company, 952 North Fourth Street, Columbus 16, Ohio.

JEFFREY

CONVEYING • PROCESSING • TRANSMISSION MACHINERY • MINING EQUIPMENT • CONTRACT MANUFACTURING

For more details circle NED-155 H7 on enclosed inquiry slip

If you had your "druthers" would it be fixin' or fishin'?

The Rotary Union eliminates the weekend "fixin'" required on stuffing boxes, packing joints, and ordinary rotating joints. Positive trouble-free service without adjustments or mechanical maintenance. The Rotary Union pays for itself many times in savings on parts, maintenance labor, and steam. For full information contact our nearest office or write for Bulletin 700D.

ROTARY UNION
Trade Name — Patented
Self-Aligning Ball Bearing
Self-Adjusting Precision Mechanical Seal

"WHERE *Good Connections* COUNT"®

PERFECTING SERVICE CO.
332 Atando Ave. Charlotte, N. C.
Baltimore—Camden, N. J.—Chicago—Cleveland—Los Angeles—New York—Providence—Montreal—Toronto

For more details circle NED-156 H7 on enclosed inquiry slip

STITCH METALS up to 5/16" thick

- Bostitch Metal Stitching cuts assembly time up to 90%.
- Stitcher punches its own hole, inserts staple and clinches it—all in ⅕ second.
- No holes to prepare. No pre-cleaning.
- Needs only a single, semi-skilled operator.
- Find out about the different types of Bostitch metal stitchers—and stitches.

Fasten it better and faster with

Write for Bulletin
BOSTITCH, 688 Briggs Drive
East Greenwich, Rhode Island

BOSTITCH®
STAPLERS AND STAPLES

For more details circle NED-157 H7 on enclosed inquiry slip

HOW CHEM-BOARD* BINBOX IDEA SAVES INVENTORY TIME and MONEY

*Chem-Board is the product of Convoy's process for chemically impregnating corrugated board, making it flint-hard and rock-strong.

WEIGHING IS FASTER THAN COUNTING

Instead of scooping out contents of a bin to count or weigh items at inventory time, the entire box is easily pulled out and weighed. Each stored part has a known count per pound. With the tare of the Convoy Bin Box established, the result is a tremendous saving in inventory time and effort.

Convoy Boxes may be *your* answer.

GET IN TOUCH WITH

CONVOY, INC.
CANTON 6, OHIO
P. O. Station B, Box 216-N

STANDARD AND CUSTOM-MADE NESTING, STACKING, and VERTICAL-SIDED CHEM-BOARD TOTE BOXES

For more details circle NED-158 H7 on enclosed inquiry slip

---

in a matter of minutes you can

REPAIR DAMAGED GALVANIZED SURFACES

with AMCO galvanizing compound

AMCO No. 321 (Powder) flows freely, covers completely, will not damage area around the repair, makes a perfect bond with the base metal and surrounding zinc coating. Comes in 1, 10 and 100 lb. containers.

AMCO No. 322 (Stick) is the same as No. 321 but in stick form for convenience in repairing areas not easily accessible. Ideal for overhead repairs, wire cables, etc. Three sticks per pound.

AMERICAN SOLDER & FLUX CO.
19th and Willard Streets, Philadelphia 40, Pa.
FLUX MANUFACTURERS SINCE 1910

For more details circle NED-159 H7 on enclosed inquiry slip

WRIGHT SAFEWAYS

Your Best Buy for Rigging and Maintenance Work

12 Sizes
½-ton to 50 tons

Bulletin 412A gives complete details on the many outstanding features that make Wright Safeways your best buy for long, trouble-free life. Write York, Pa. for your copy.

Some Safeway Features

Load Chain is finest alloy, every foot proof-tested...heat treated for hard wear-resistant working surface...ductile to withstand shock loads..."wick" lubricated...anti-rust zinc coat.

Load and Idler Sheaves rotate on life-lubricated, antifriction bearings...minimum of 5 pockets in Big Sheaves for efficiency and long life.

Gears, Pinions, Drive Spindle (also top and bottom Hooks) are nickel-chrome-molybdenum alloy steel mounted on heavy-duty, antifriction bearings. *Gear Train* is enclosed in oil-tight chamber.

Load Brake is Weston type, silent, dependable.

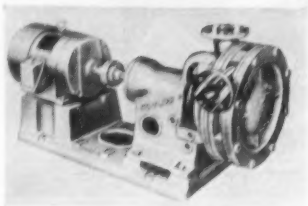
Steel Housing fully protects vulnerable parts.

Wright Hoist Division
AMERICAN CHAIN & CABLE
ACCO
York, Pa., Atlanta, Chicago, Denver, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, San Francisco, Bridgeport, Conn.

For more details circle NED-160 H7 on enclosed inquiry slip

GLASS-LINED PUMP

made in capacities up to 700 gpm to withstand corrosive chemicals



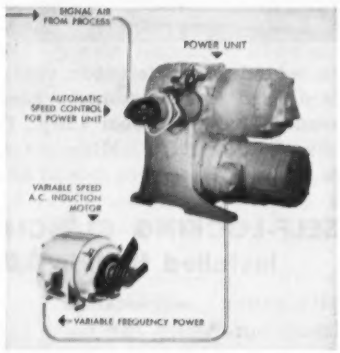
All metal parts of this centrifugal pump which come in contact with the handled liquid have permanently fused Pfaudler glass covering to withstand corrosives used in chemical, pulp and paper, plastic and petrochemical industries. Even at high temperatures, all acids except hydrofluoric and concentrated phosphoric leave working surfaces unaffected.

Glass and metal interlock mechanically at fusion temperatures with the result that fractures from sharp impact will not "run." Damage remains only at the point of impact. Pump will normally withstand quick changes of liquid temperatures up to differentials of 200° F. It is made in four sizes with capacities up to 700 gpm and heads up to 140 ft. Balanced, semiopen impeller is glassed on all sides. Made by **Goulds Pumps, Inc.**, Dept. NED, 32 Black Brook Rd., Seneca Falls, N. Y.

For more details circle NED-161 H7 on enclosed inquiry slip

VARIABLE SPEED DRIVE

speed changed by varying frequency delivered to standard ac motor

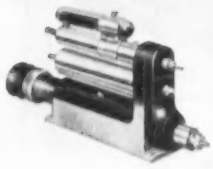


Automatically controlled in response to a variety of input signals, this Varidyne variable speed, multiple drive system consists of a Varidyne power unit, one or more alternating current induction motors and a Varitrol automatic control system. It permits automatically changing speeds of several motors equally and simultaneously. Signals to the Varitrol can be from any one of several standard control instruments that are affected by such variables as temperature, pressure, weight, humidity or velocity.

A standard 60-cycle three-phase squirrel-cage motor is converted into a variable speed motor by means of an alternator. Dripproof, totally-enclosed and explosionproof motors as well as standard constructions are offered in speeds from 1 to 10,000 rpm and in ratios to 5:1. Varidyne motors can be provided with integral gearing or integral variable speed transmission for speed trimming in ⅓ to 25-hp ratings. Made by **U. S. Electrical Motors Inc.**, Dept. NED, 200 E. Slauson Ave., Los Angeles 54, Calif.

For more details circle NED-162 H7 on enclosed inquiry slip

AUTOMATION Within Any Budget!



LYNMATIC DRILL UNIT

Low cost drilling. Rugged, precise, simple design. Adjustable hydraulic feed control, rapid traverse, 2" stroke, 2" centers. Positive depth stop. Automation production or short run versatility.

TOOLMOR AIR CYLINDERS

Extremely compact, rugged, powerful. Standard, ball, swivel, threaded ends. Easier installation. Longer life. Amazing tool versatility.

LYNCO 34 AUTOMATIC AIR IMPACT TOOL

Lightweight, pencil type, versatile, rugged, compact, economical. For scaling, etching, screwdriving, riveting, center punching. Only 9 oz.! 5¾" long, 10,000 B.P.M. Operates only when doing work.

Write for full details to:

BURKLYN COMPANY
Manufacturers of Automation Tooling and Production Devices
3429 GLENDALE BLVD. LOS ANGELES 39, CALIF.

For more details circle NED-163 H7 on enclosed inquiry slip

A NEW DIMENSION IN DESIGN MATERIAL...

PRECISION BORE GLASS TUBING

Wilmad Offers Unheard-Of Accuracy and Low Cost

Design Engineers are constantly searching for new materials to reduce costs and improve preformance. Wilmad has helped make glass a "new" material by producing precision bore tubing of uniform accuracy with amazing tolerance limits. Wilmad Precision Bore Tubing can be used in making product components, instrument assemblies or sub-assemblies, wave guide tubes, manometers, rotameters, viscosimeters, barometers, McLeod gauges, dilatometers, burettes, dash pots, capacitors, diodes . . in virtually hundreds of precision applications in industry.

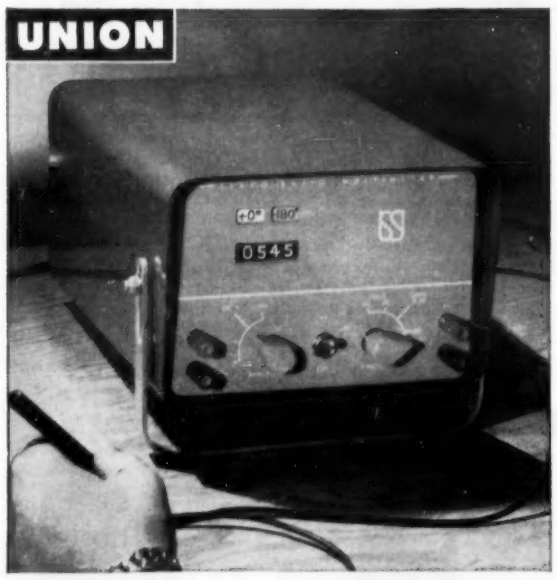
Learn how precision bore glass tubing can improve **your** product. Let our engineers help you determine how Wilmad Glass Tubing can solve your design problems.

Write for our **new** bulletin on Precision Bore Tubing.

WILMAD GLASS CO., INC.
Landisville, New Jersey

For more details circle NED-164 H7 on enclosed inquiry slip

UNION



NEW SERVO-RATIO MULTIMETER

Combines all the functions of an AC-DC voltmeter, ohmmeter and AC-DC ratiometer in one compact portable unit

Here is a new, highly accurate computer test instrument designed to measure AC-DC ratios, absolute AC-DC voltages and resistance. It can also measure the gain of operational amplifiers by use of the 0° phase output provided.

This high-impedance instrument computes voltage ratios by dividing the voltage to be measured by the reference voltage obtained from the computer. Direct readout is provided in an average time of 3 seconds with a 4-digit illuminated drum counter. Phase or polarity of measured voltages is indicated by phase lights above the counter.

The Servo-Ratio Multimeter is compact and easy to handle. It can be operated horizontally or vertically and has a unique handle that serves as a tilt-stand for the horizontal position. Write for Product Description 2005.

SPECIFICATIONS

Power Consumption: 50 Watts, 110 Volts, 60 cps.
Reference Voltage: DC or 60 cps AC; ± 10 Volts to ± 100 Volts across 8.7K Ohms Load.

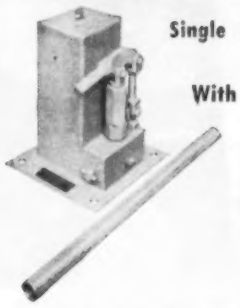
Function	Range
Ratio, AC & DC	0.001 to 1.000 ± 0.1% in 1 range
60 cps AC Voltage	1 Volt to 1000 Volts full scale ± 1.0% in 4 ranges
DC Voltage	1 Volt to 1000 Volts full scale ± 1.0% in 4 ranges
Ohms	10K Ohms to 10 Megohms full scale ± 1.0% in 4 ranges
Gain	0.01 to 1000 in 4 ranges

Quality First...TO LAST

UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY
PITTSBURGH 18, PENNSYLVANIA

For more details circle NED-165 H7 on enclosed inquiry slip

HAND HYDRAULIC PUMP



Single and Double Designs to 20,000 Psi
With or Without Reservoir

160 Cubic Inch Reservoir with 8" x 8" Base Plate. Optional Size Piston: 3/8", 1/2", 3/4", 1". Handle length: 18 inches. Catalog No. 160

We specialize in hand pump units to operate in temperatures from minus 65F to plus 160 F and with any capacity reservoirs required.

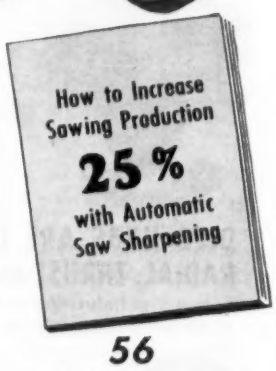
The single pump with 1/2" or 3/4" piston now available in stainless steel.

WILLIAM S. PINE
Hydraulic Hand Pumps for 1001 Uses
1635 E. 22nd St., Los Angeles 11, Calif.

For more details circle NED-166 H7 on enclosed inquiry slip

IF YOU USE SAWS GET THIS FREE BOOK

This free book is based on facts and experience from many years' use of Foley precision saw filing equipment in thousands of plants. It contains pictures and helpful data showing how firms have actually increased sawing production 25% to 40%, lengthened saw life, reduced breakage, produced better work, and have lowered maintenance costs. One firm reports an annual saving of $350. Book includes instructions illustrating how automatic sharpening can benefit you. Request Manual No. 100—no obligation.



56 helpful pages

FOLEY MANUFACTURING CO.
3323 N. E. 5TH ST. • MINNEAPOLIS 18, MINN.

For more details circle NED-167 H7 on enclosed inquiry slip

SAVES TIME on lighter-duty handling and storage

Automatic small parts painting.

Now, at low cost, your smaller manufacturing and processing operations can have full benefit of overhead handling and storage. With new A-F Trol-e-veyor, you can save valuable floor space, reduce handling time. And Trol-e-veyor gives you all the advantages of proven heavy-duty designs, at a new low price!

Components immediately available from stock, installation quick and low-cost. Optional 8", 12", 16" or 20" trolley spacing. Handles loads up to 160 lbs.

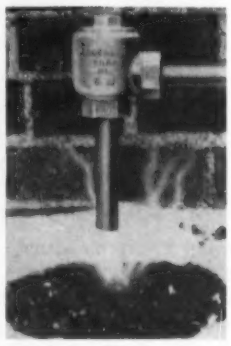
Write today for our new TROL-E-VEYOR BULLETIN.

A-F Conveyors
Engineered Conveyor Systems
Packaged Conveyors—Wheel, Roller, Belt, Trolley

The Alvey-Ferguson Co., Dept. HA-8 Cincinnati 9, Ohio and Azusa, California

For more details circle NED-168 H7 on enclosed inquiry slip

STEAM TRAP
thermostatic unit is freezeproof



Cap of forged steam bronze or cast semisteel, Anderloy alloy valve and seat, tapered guided valve, and heavy duty cast steam bronze or semisteel body are features of Quik-Flex freezeproof thermostatic steam trap. It will withstand weather of outdoor, or indoor industrial installations. It has a removable cap for easy maintenance and access to interior without disconnecting any pipe fittings. Also incorporated is a constant spring load phosphorus bronze and Monel bellows. Trap is suited for capacities up to 31,000 lb of condensate per hour. Pipe sizes range from 1/2 to 1 1/4 in. Made by **V. D. Anderson Co.**, Dept. NED, 1935 W. 96th St., Cleveland 2, O.

For more details circle NED-169 H7 on enclosed inquiry slip

NET WEIGHING MACHINE
mounts on customer's storage hopper

Accurate weigh feeding of such materials as nylon resin in 25-lb quantities is function of the model 447-22-NW - 1500 automatic net weighing machine. Tests on the nylon product show an average weighing time of 5 seconds and dumping time of 2 seconds, with a weight accuracy of 1/4-per cent. Even balance lever system with visual indicator and dial permits observation of each weighment. Scale weigh bucket can be mounted with 1 in. between the lowest portion of the two-speed air-operated filling valve and the weigh hopper. Remote control station permits automatic, semiautomatic or manual operation. Weigh bucket on illustrated machine holds 1500 cu in. Various sizes of weigh hoppers are available. Made by **Exact Weight Scale Co.**, 930 W. Fifth Ave., Columbus 8, O.

For more details circle NED-170 H7 on enclosed inquiry slip

CORRECTION

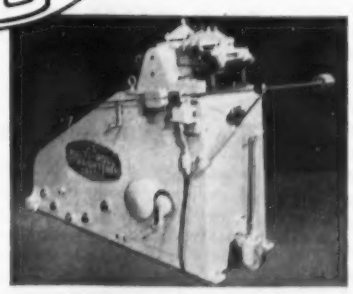
In the description of the Hiawatha ball unit bearing (*NED*-388 *F7*) in our June issue, a misleading headline "Ball Bearing Mount" was used. Actually, this device is a "Ball Unit Bearing" and should have been so named in our description. The bearing ball is mounted in a resilient neoprene liner in a three-arm bracket for use on blowers and other equipment. Made by **Triangle Mfg. Co.**, Dept. M-5, Oshkosh, Wis.

For more details circle NED-171 H7 on enclosed inquiry slip

USE U.S. PRODUCTS ★

Model PDSC-940 (Portable) Capacity: Material up to 9" wide x 1/8" thick. Coils with O.D. up to 40". Also made in other sizes.

REDUCE PRESS-ROOM COSTS



★ U. S. PRODUCTS
Slide Feeds
Roll Feeds
Stock Straighteners
Stock Reels
Stock Oilers
Coil Cradles
Wire Straighteners
Die Sets
Multi-Slides®
Multi-Millers®

Don't allow inefficient operations to devour your profit margin. U. S. Automatic Pressroom Equipment is designed and built to help you effect savings in the production of stampings.

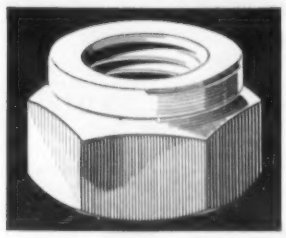
The use of coil stock in press operations generally results in the need for a Straightener and a Coil Holder. On operations of this type you can improve efficiency, and at the same time conserve valuable floor space by using a U. S. Combination Coil Cradle and Power-Driven Straightener of the type illustrated above.

Your inquiries are invited. Ask for Bulletin 100-N.

U.S. TOOL COMPANY, INC.
AMPERE (East Orange) NEW JERSEY

For more details circle NED-172 H7 on enclosed inquiry slip

Specify standard FLEXLOC® microsize locknuts



- One-piece, all-metal construction
- Resilient locking section
- Controlled locking torque
- Lock and stop nut in one
- Every thread carries its full share of the load
- Made to Class 3B fit

Smaller than regular FLEXLOCS of the same nominal diameter, FLEXLOC microsize locknuts make possible smaller mating joints and flanges. Standard materials are brass (plain or cadmium plated) and aluminum (plain or chemically treated), for temperatures to 250°F; alloy steel and 18-8 stainless steel, for temperatures to 550°F. They are available in sizes #0 through #4 at your industrial distributor's. See him for details. Or write for literature, samples, information on other materials. Flexloc Locknut Division, STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

FLEXLOC LOCKNUT DIVISION
STANDARD PRESSED STEEL CO. SPS JENKINTOWN PENNSYLVANIA

For more details circle NED-173 H7 on enclosed inquiry slip

Around the yard in 80 hours
—On tires that last for years

Weekly grind in steel plant proves grip and traction of Goodyear AWT Industrial Tires

SIXTEEN HOURS a day, five days a week, trucks like this haul and stack rolls of plate steel. Site of this activity is the yard of a California steel plant, and steel scrap scattered all over the area offers an additional hazard for tires.

The tires used here are Goodyear Industrials. In service more than a year, these hard-working tires are still almost good as new. They've already saved the management some money—and figure to save more.

The reason: Goodyear's renowned All-Weather Tread is designed to provide sure-footed stability on difficult surfaces. In addition, these tires are made with *specially developed Goodyear "UN" compound* to give extra resistance to cutting and chipping. And a unique bonding-to-steel band process helps to eliminate base separation.

UN compound, plus Goodyear's famous All-Weather Tread, have proved the ideal combination for long industrial tire life.

If you have a problem involving industrial tires, why not talk it over with your Goodyear dealer? He can help you by fitting the right tire to the truck—and to the job. Goodyear, Industrial Tire Sales, Akron 16, Ohio.

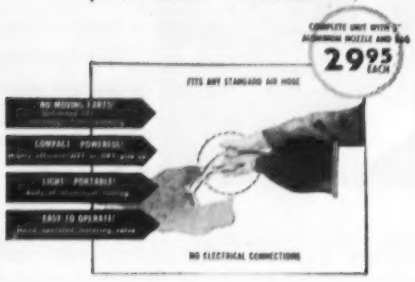
Look for this sign; there's a Goodyear dealer near you.

Use the Right Tire for the Job—Buy and Specify
GOODYEAR INDUSTRIAL TIRES
All-Weather—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

For more details circle NED-174 H7 on enclosed inquiry slip

cut industrial cleaning costs!

Safe Industrial Cleaning
with the M-M-A
"Little Windy" Airvac
(AIR-OPERATED VACUUM CLEANER)



M-M-A, INC.
LANCASTER, PA.

Write for further data and technical information

For more details circle NED-180 H7 on enclosed inquiry slip

LET US TAKE YOUR NOISE AND PULSATION PROBLEMS OFF YOUR HANDS

It is our engineering specialty to

STOP PULSATION —from surges created by compressors, pumps, blowers and pressure reduction systems.

STOP NOISE —from intake or discharge of air, steam or gas from engines, compressors and vacuum systems.

The Burgess-Manning Snubbing Principle, engineered to your specific problems, will provide noteworthy savings in operating and installation costs, increased production, reduced maintenance, improved public and employee relations and prevention of compensation claims.

We invite you to present your problems for recommendations.

BURGESS-MANNING COMPANY
Sound Engineering 755 East Park Avenue, Libertyville, Illinois
Dallas, Texas

For more details circle NED-181 H7 on enclosed inquiry slip

USE EASY-IN EASY-OUT... Spirolox

Retaining Rings
with compact 2 turn design
Eliminates trouble spots, costly machining and awkward parts!

Application pictures below show how simply and effectively cylindrical assemblies are positioned and locked by Spirolox! Unique *two-turn* design conforms to internal or external groove. Spirolox will not jump out because opening and closing force is resisted by friction between turns. Always provides a uniform shoulder! No gaps to interrupt uniform circumference; no lugs to create weak spots. Easy to flip out with screwdriver.

FREE TEST SAMPLES AND DATA BULLETIN
Send us blueprint of your retaining problem!
Thompson Products, Inc., Piston Ring Div. (Ramsey Corp.) Dept. F, St. Louis 8, Mo.

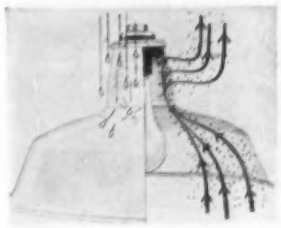
5762RRT

U. S. Pat. No. 2,450,425 and Foreign Pats. Other Pats. Pend.

SPIROLOX—the Better Way to Hold Moving Parts TOGETHER!

For more details circle NED-182 H7 on enclosed inquiry slip

LIGHTING EQUIPMENT
incandescent and mercury types



Miller-Ivanhoe line of industrial incandescent and mercury lighting equipment includes two mounting and socket assemblies which facilitate installation and maintenance. Louvered, ventilated, reflector necks protect lamp from moisture, yet provide a self-cleaning action. Steel reflectors are white porcelain enameled inside and outside. Various dome shapes are offered for 100 to 1500-w bulbs. Made by **Miller Co.**, Dept. IV-657, Meriden, Conn.

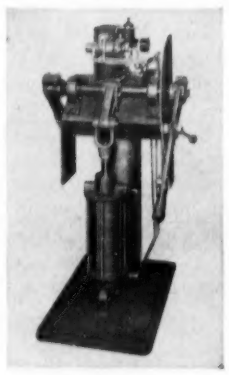
For more details circle NED-183 H7 on enclosed inquiry slip

MAGNIFYING SHIELDS
incorporate fluorescent light

Inspection, machining, assembly, drafting and other work requiring optimum vision are facilitated with this line of magnifying shields. Bench, floor, hand and table mounting styles are available. All have 5-in. diameter lens for broad field of vision. Shadow-free light is provided by fluorescent lamps. Offered by **Industrial Products Co.**, 2807 N. Fourth St., Philadelphia 33, Pa.

For more details circle NED-184 H7 on enclosed inquiry slip

PNEUMATIC DRIVE UNITS
position valves, dampers, louvers



Line of pneumatic drive units, which can be adjusted with linear, square or square root characteristics, is designed to position butterfly and control valves, dampers, louvers, rheostats, vanes and variable-speed drives. Actuation is by remote automatic or manual pneumatic signals in the 0-20 psi range. Unit combines a positioner, four-way valve, power piston and feed-back cam. Five models have from 4 to 8-in. bores, with 8 and 12-in. strokes and nominal torque ratings on 80-psi air supply of 265 to 850 lb-ft. All five models have 90-degree angular rotation, are equipped for manual operation and consume 1.5 scfm of air at 80 psi. Positioning accuracy is better than 0.2-per cent. Made by **Blaw-Knox Co.**, Copes-Vulcan Div., 941 W. 26th St., Erie 4, Pa.

For more details circle NED-185 H7 on enclosed inquiry slip

Southern MACHINE SCREWS

One of a Large Family of Fine Fasteners*

For all your operations where precision machine screws are essential, it will pay you to use Southern machine screws.

Headed, slotted (milled slots), threaded and tested under constant quality controls, all Southern fasteners meet our most rigid specifications. They will meet yours, too!

Flat, round, oval, pan, truss, binding or fillister head styles —Slotted (milled slots) or Phillips in steel, brass, aluminum or stainless steel.

Write on company letterhead to Box 1360NED, Statesville, North Carolina for Stock List and free samples.

*Also: Wood Screws • Stove Bolts • A, B & F Tapping Screws • Roll Thread Carriage Bolts • Dowel Screws Hanger Bolts • Wood & Type U Drive Screws.

Southern SCREW COMPANY
STATESVILLE • NORTH CAROLINA

Warehouses: New York Chicago Dallas Los Angeles

For more details circle NED-186 H7 on enclosed inquiry slip

New Booklet...

gives you the facts on SILASTIC SILICONE RUBBER

Parts fabricated of Silastic*, the Dow Corning silicone rubber, stay flexible under conditions that destroy organic rubber. This new booklet spells out the properties of Silastic . . . properties such as—

- Resilience from —130 to +500 F
- Resistance to weather and ozone
- Resistance to oils, fuels, chemicals
- Resistance to moisture and steam
- Low compression set
- High strength, long life

SEND FOR YOUR COPY TODAY! . . . DEPT. 5420

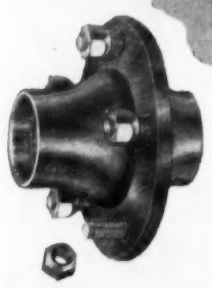
first in silicones

Dow Corning CORPORATION
MIDLAND, MICHIGAN

*T. M. REG. U. S. PAT. OFF.

For more details circle NED-187 H7 on enclosed inquiry slip

DICO DEMOUNTABLE WHEEL HUBS HAVE 5 BOLTS!



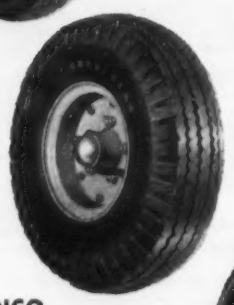
DICO HUBS ARE DESIGNED TO MEET RADIAL, THRUST and TORSIONAL LOADS

Automotive Industry practices have proven the need of (5) bolt construction in wheels of this type.

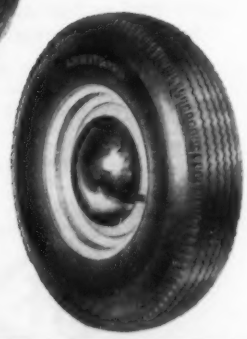
ONE HUB FITS ALL WHEELS

4.80/4.00x8	2.50"	Standard Rim
4.80/4.00x8	3.75"	Wide Base Rim
5.00x8	3.75"	Standard Rim
5.70/5.00x8	4.25"	Wide Base Rim
5.50x8	4.25"	Wide Base Rim
6.90/6.00x9	4.00"	Standard Rim
4.80/4.00x12	4.00"	Wide Base Rim
5.30/4.50x12	4.00"	Wide Base Rim
6.00x12	4.00"	Wide Base Rim

The largest and most diversified line of industrial low speed and high speed wheels in the U.S.A... in sizes up to 24" rubber tire diameter.



LET DICO ENGINEERS HELP YOU WITH YOUR WHEEL APPLICATIONS



DICO DES MOINES 5, IOWA

For more details circle NED-188 H7 on enclosed inquiry slip

CUT PRODUCTION COSTS!

MARK NAME PLATES 5 TIMES FASTER

MODEL EMT-1
ELECTRIC TAG TYPEWRITER
A touch of the finger delivers up to 2 tons pressure for deep, legible impressions in metal or plastic tags.

—WITH—
Automark
ELECTRIC TAG MARKING MACHINES

MODEL SRST-2
HI-SPEED
TAG MARKING MACHINE
Automatically marks BOTH constant and serial numbers at any desired speed up to 8,000 tags per hour!
MANUFACTURERS' AGENTS
Some Territories Still Available
Send Now for Bulletin

DEFIANCE MACHINE & TOOL COMPANY
1920 S. VANDEVENTER Dep't. QD ST. LOUIS 10, MO.

For more details circle NED-189 H7 on enclosed inquiry slip

SEALED

CASTERS... Grease stays in! Dirt stays out!

Here's a long-life, easy-rolling and easy-swiveling caster. Why? Sealed wheel and swivel bearings keep grease in, dirt out.

This virtually eliminates lubrication maintenance, assures best possible caster life, eliminates floor hazards and saves you money.

Both Bassick "S99" heavy duty and "H99" medium heavy duty casters are sealed. Ask your local distributor for them. 7.36

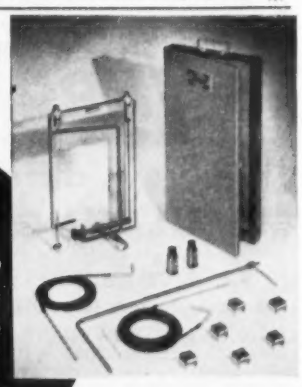
THE BASSICK COMPANY
BRIDGEPORT 5, CONN.
IN CANADA:
BELLEVILLE, ONT.

Bassick A DIVISION OF STEWART SW WARNER
MAKING MORE KINDS OF CASTERS... MAKING CASTERS DO MORE

For more details circle NED-190 H7 on enclosed inquiry slip

Dwyer CONTROLS GAGES

AIR VELOCITY METER No. 400



One Instrument Tells Both Air Velocity and Static Pressure!

- Reads directly in feet per minute and inches of water.
- Check all velocities from 400 to 10,000 F.P.M.
- All static pressures from 0 to 10" of water.

Tests fan and blower discharge and inlet pressures, pressure drop across filters, balances air conditioning systems, etc. Complete kit includes dual purpose manometer, 18" stainless steel pitot tube, Magneclips and all necessary fittings, tubings, instructions and accessories.

Write today for literature and prices.

F. W. DWYER MFG. CO.
P.O. BOX 373-Q MICHIGAN CITY, INDIANA

For more details circle NED-191 H7 on enclosed inquiry slip

DIAL INDICATORS
accurate to one-fifth graduation

Repeat readings, accurate within one-fifth of a graduation over the entire range, are obtained with Golden Em-re series of dial indicators. Model graduated in 0.0001-in. is accurate within 0.00002-in. Balanced dials are available with 0.0001, 0.0005 and 0.001-in. graduations in three corresponding ranges of ±0.002, 0.010 and 0.020-in. Shockproof indicators are antimagnetic and have a jeweled, geared mechanism. Made by **Petz-Emery, Inc.,** Dept. NED, Pleasant Valley, N. Y.

For more details circle NED-192 H7 on enclosed inquiry slip

PLASTIC PIPE CLAMP
made of stainless steel wire

Easily slipped over flexible polyethylene plastic pipe, the Wind-A-Clamp fits snugly enough for positioning before locking. It is locked by twisting its eyelet ends one-quarter turn with fingers, then with pliers until pipe is slightly indented. Reusable clamp is made of a high tensile strength stainless steel wire, preformed of two strands with eyelet ends. Made by **Manufacturers Corp.,** 104 Ausdale Ave., Mansfield, O.

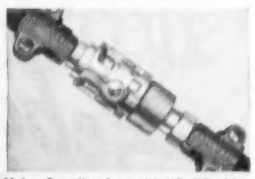
For more details circle NED-193 H7 on enclosed inquiry slip

CAULKING GUN
for up to 5000 psi service

Sealers, mastics, caulking compounds, putties and similar materials can be applied by this 13-oz high pressure Flo Gun. Body is aluminum alloy, control lever is manganese-bronze, and valve and seat are carbide. Flow rate is adjusted by control knob at back of gun. Outlet includes ⅜-in. NPT (male), ⅛-in. NPT (female) and pencil tip. Detachable nozzle stud allows fast, easy tip changing. Designed for use with an overhead supply system, gun is suited for up to 5000-psi applications. Pumps for delivering all types of fluid, semi-fluid and viscous materials to Flo-Guns are available. Made by **Gray Co.,** 1098 Sibley St. N.E., Minneapolis 13, Minn.

For more details circle NED-194 H7 on enclosed inquiry slip

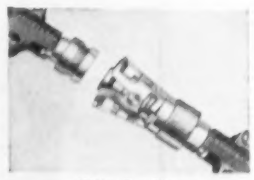
EXTRA HEAVY locking, safety type quickly detachable


Valve Coupling Locked in "On" Position

VALVE COUPLINGS

give the operator complete control of the air line at any point

Operator can shut off air and change tools quickly. Newly improved design permits the coupling to be locked in either "On" or "Off and Exhaust" position. Air in tool is exhausted to atmosphere automatically, preventing accidents. Pressure tight leak-proof construction — but free swiveling to avoid kinking the hose. For any application involving line air to 250 psi.


Valve Coupling Unlocked and Disconnected

Valve Coupling Locked in "Off and Exhaust" Position

Write for Bulletin No. 551

Quick-As-Wink®
Air and Hydraulic Control Valves and Pressure Specialties

C. B. HUNT & SON, INC.
2105 E. PERSHING ST. • SALEM, OHIO

For more details circle NED-195 H7 on enclosed inquiry slip

LELAND PUMP MOTOR
Operates Submerged in Gasoline—
Motor Protection by
KLIXON PROTECTORS

In over 30 years the Leland Electric Company has been a leader in supplying explosion-proof motors for gasoline service station pumps.

Recently, Leland announced its development of its submersible explosion-proof pump motor which can serve from 4 to 8 pedestals. As Leland says, *"When a motor operates submerged in gasoline, overload protection is of greatest importance. Therefore, Leland, as always, depends on KLIXON Protectors."*

You, too, can keep motors in your equipment operating at maximum safe capacity, can reduce service calls and repairs by specifying and using KLIXON Protectors. The additional cost is low . . . the additional benefits extremely worth while.

Write for the new free informative booklet, "The Story of the Spencer Disc."

METALS & CONTROLS CORPORATION
Spencer Thermostat Division 1798 Forest Street, Attleboro, Mass.
KLIXON

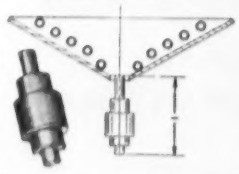
For more details circle NED-196 H7 on enclosed inquiry slip

The Lepel line of induction heating equipment represents the most advanced thought in the field of electronics as well as the most practical and efficient source of heat yet developed for industrial heating.

If you are interested in induction heating you are invited to send samples of the work with specifications. Our engineers will process and return the completed job with full data and recommendations without any cost or obligations.

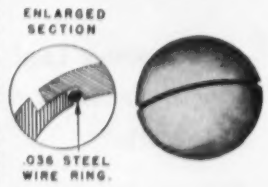
TYPICAL INDUCTION HEATING APPLICATIONS

TEMPERING FOR CUSTOM HEAT TREATING



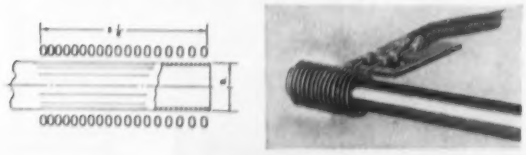
Selected areas of hardened steel parts may be tempered for fabrication or service requirements. Concentrator type coil permits high power density in restricted area thus minimizing heating time and permitting marked variation in properties in adjacent sections.

WIRE RING JOINS PLASTIC PARTS



High frequency induction heats wire ring which in turn heats plastic wall, providing sufficient plasticity to cause flow and bonding upon application of pressure. Metal to plastic seals are similarly performed.

ANNEALING ALUMINUM FURNITURE TUBING



Selective annealing of aluminum furniture tubing permits bending where required without loss of strength in adjacent portions of tube. Brass or steel tubing is also being selectively annealed.

Electronic Tube Generators from 1 kw to 100 kw.
Spark Gap Converters from 2 kw to 30 kw.

WRITE FOR THE NEW LEPEL CATALOG . . . 36 illustrated pages packed with valuable information.

All Lepel equipment is certified to comply with the requirements of the Federal Communications Commission.

LEPEL HIGH FREQUENCY LABORATORIES, INC.
55th STREET and 37th AVENUE, WOODSIDE 77, NEW YORK CITY, N. Y.

For more details circle NED-197 H7 on enclosed inquiry slip

ARMSTRONG WRENCHES

Types and Sizes for Every Industrial Use

ARMSTRONG Wrenches have engineered designs, a wide safety factor of extra strength, accurately machined openings that go over screw heads or nuts easily, grip firmly—will not slip, round corners or mar faces.

Drop forged from special high tensile carbon and alloy steels, heat treated to an exactly predetermined balance of hardness, toughness and tensile strength. ARMSTRONG Wrenches will not "chew out," will stand up through years of service, making work faster, easier and safer.

In sizes and types, ARMSTRONG Wrenches comprise the most complete line of industrial wrenches manufactured. Specify "ARMSTRONG" when ordering wrenches.

Write for Catalog

ARMSTRONG BROS. TOOL CO.
5245 W. ARMSTRONG AVE. • CHICAGO 30, ILL.

For more details circle **NED-198 H7** on enclosed inquiry slip

ACES BACK TO BACK

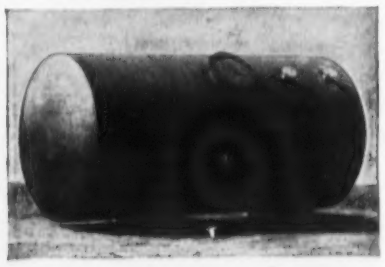
the resiliency of rubber... ...the strength of steel

An Unbeatable Combination against Corrosion, Abrasion and Erosion in Industry.

Rubber and Steel, wedded by experts with an adhesion of over 500 psi, offers a service and economy never dreamed of in the process industry 10 years ago.

Whether your needs involve conduction or storage, corrosive fluids from acids to alkalies, abrasive solids from finest powder to coarsest crystals, under vacuum or pressure conditions, find out what rubber and steel can do for you.

La Favorite offers 40 years experience in "growing up with rubber" as a basis for help and advice.



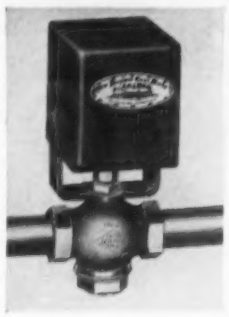
One of several rubber lined tanks for City of Baltimore water system to hold 30% fluosilicic acid.

Call us now and reverse the charges, or send for bulletin 55, the complete story of La Favorite and its service.

LA FAVORITE *Rubber Mfg. Co.*
273 Wagaraw Road • Hawthorne, New Jersey

For more details circle **NED-199 H7** on enclosed inquiry slip

MOTOR-OPERATED VALVE
ten sizes range from 1/4 to 3 in.



Capacity of 150 psi on most sizes, no mounting restrictions, permanent lubrication and 3⅝ x 3⅝-in. operator size are features of this motor operated globe valve. It is available with a Jenkins bronze globe body in 10 sizes from ¼ to 3 in., and a choice of 24, 115 and 230-v and 8, 32 and 139-second timing cycles. Unit can be controlled by any positive action single - pole double - throw switch of temperature, float, manual, time, program or pressure actuated type. It will not bind or stick, has automatic disk compensation and will fit between 16-in. center floor joists. Made by **New England Gear Works,** 2010 S. End Rd., Southington, Conn.

For more details circle **NED-200 H7** on enclosed inquiry slip

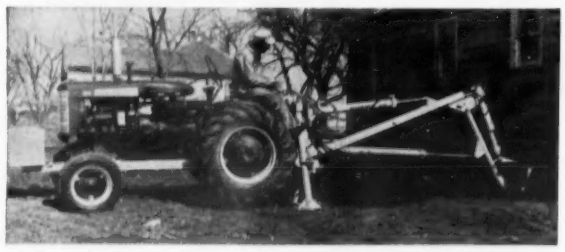
FIRE EXTINGUISHER
nontoxic dry chemical type

Squeeze of the hand operates the model PDC-2A fire extinguisher which emits a harmless, nontoxic, noncorrosive, dry chemical. Only 14½ in. high and weighing 4 lb, it will not freeze in any climatic temperature. A pressure gage indicates its readiness for use. It is UL-approved for Class B flammable liquid and Class C electrical risks. Made by **American LaFrance Corp.,** FPE Div., 133 E. LaFrance St., Elmira, N. Y.

For more details circle **NED-201 H7** on enclosed inquiry slip

BACKHOE
designed for tractor mounting

Ability to dig 9½ ft deep, reach 15 ft and provide 6200 lb of digging force at the bucket teeth is built into the D65 backhoe. It can be mounted on the In-



ternational 130 and other light industrial tractors. Utility bucket widths are from 12 to 24 in. and grave buckets from 32 to 36 in. wide. Made by **Shawnee Mfg. Co.,** 1947CA N. Topeka Ave., Topeka, Kans.

For more details circle **NED-202 H7** on enclosed inquiry slip

SHELDON Sebastian

CHICAGO U.S.A.

New 13" and 15" Precision Geared Head Lathes

These new, more powerful, more capable lathes will: Work to the closest tool room tolerances ... Stand up under continuous, heavy-duty, production runs ... Available in 5', 6' and 8' bed lengths ... Features hardened bed ways, dial selector for spindle speeds; automatic lubrication of headstock and apron; independent drop lever clutches for power feeds; heavy, modern pedestal and 60 pitch gear box.

Write for catalogs describing the new cost-cutting machine tools designed and built by SHELDON, and, the name of your nearest distributor where you can see and test them in operation.

SHELDON MACHINE CO., Inc.
4215 N. Knox Avenue, Chicago 41, Illinois

For more details circle **NED-203 H7** on enclosed inquiry slip

FREE 16 PAGE CATALOG

SAVE AIR AND GAS ...with this meter!

Completely self-contained, self-operated BUILDERS SHUNTFLO METERS can be installed right in your pipeline to check air and gas usage. These direct-reading, easy-to-install meters are available for 2" to 14" lines.

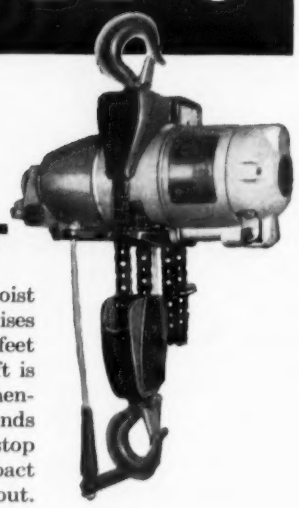
Send for your colored, illustrated copy of Bulletin 400-J10A. **Builders-Providence, Inc., 425 Harris Ave., Providence 1, R. I.**

BUILDERS-PROVIDENCE DIVISION OF **B-I-F INDUSTRIES** METERS FEEDERS CONTROLS

For more details circle **NED-204 H7** on enclosed inquiry slip

NEW!

2-TON AIR HOIST



New Keller Tool air hoist weighs 100 pounds . . . raises 4000-pound load at 10 feet per minute. Length of lift is 8 feet. Hook-to-hook dimension is 23½ inches. Responds instantly to start and stop controls. Powerful, compact air motor cannot burn out. Write for details.

ENGINEERING FORESIGHT—PROVED ON THE JOB IN GENERAL INDUSTRY, CONSTRUCTION, PETROLEUM AND MINING

GARDNER - DENVER
Gardner-Denver Company, Quincy, Illinois

For more details circle **NED-205 H7** on enclosed inquiry slip

LUBRIVAL

—a new, different, better CIRCULATING OIL SYSTEM

Bulletin 70 tells how it works, where to use it

LubriVal is specifically designed for safe, sure, foolproof circulating lubrication of presses and automatic and semi-automatic machines.

LubriVal is a Farval system, employing the Dualine principle of pumping oil under pressure to measuring valves which deliver it to bearings. Lubricant is fed by positive piston displacement.

LubriVal Progressive Dualine Valves, manifolded in any number required, have individual sight indicators, with pressure sensing mechanism which warns of clogged or broken lines in *any part* of the system —a feature entirely new to circulating oil systems.

FARVAL CENTRALIZED SYSTEMS OF LUBRICATION

Bring your file up to date with Bulletin 70

The Farval Corporation
3283 E. 80th St. Cleveland 4, Ohio
Sales Representatives in all major industrial market centers

For more details circle **NED-206 H7** on enclosed inquiry slip

Veelos Knocks Out Belt Vibration... Up To 90%!

HERE'S PROOF! With an electronic vibration analyzer, your Manheim Veelos representative can measure the exact vibration in your machines. This test is absolutely free and is offered as conclusive proof that Veelos Adjustable V-Belts are better for your drives.

TEST YOUR BELTS! Test Veelos belts against the V-belts you're now using—convince yourself, in this 15 minute test, that Veelos cuts V-belt vibration up to 90%. Smooth running Veelos saves you money by cutting down bearing wear, work spoilage, etc.

Write for free Vibration Demonstration or Free Veelos Data Book to:

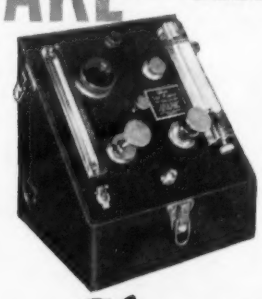
MANHEIM
MANUFACTURING & BELTING CO.
605 Stiegel St., Manheim, Penna.

VEELOS THE BALANCED LINK V BELT

Veelos is known as Veelink outside U.S.A.

For more details circle NED-207 H7 on enclosed inquiry slip

TAKE GUESSWORK OUT of DEW POINT READING with Alnor DEWPOINTER



Any shop man can quickly...accurately...read dew points with the Dewpointer. It is the only instrument that lets you see the fog in a sealed chamber under controlled conditions. Compare this fast, positive method with attempts made to tell exactly when fog forms on a mirrored surface. Completely self-contained, requires no external coolant or auxiliary apparatus ...operates on enclosed battery or AC. Available in three ranges for dew points between −20° F. and room temperature, from −80° to 0° F. and −80° F. to room temperature.

Send for Dewpointer bulletin. Tear out this ad and send on your letterhead to: Illinois Testing Laboratories, Inc., Room 529, 420 N. LaSalle St., Chicago 10, Ill.

Alnor PRECISION INSTRUMENTS FOR EVERY INDUSTRY

For more details circle NED-208 H7 on enclosed inquiry slip

FACTUAL NEW BOOK

on a unique (use it anywhere) check valve

Combined with any standard pipe fitting, the DURABLA Basic Check Unit becomes a complete check valve—for almost any service. *It operates perfectly in any position...handles any liquid, gas or air.*

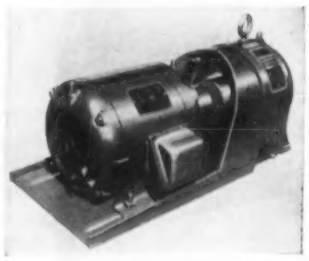
For the full story on these versatile valves, send for a free copy of this *new* booklet. Includes typical applications, construction details, table of sizes and weights, etc. Ask for Form 300 NED87.

DURABLA MANUFACTURING COMPANY
114 Liberty Street, New York 6, N. Y.

Patent No. 2,649,277 DURABLA® DM-26

For more details circle NED-209 H7 on enclosed inquiry slip

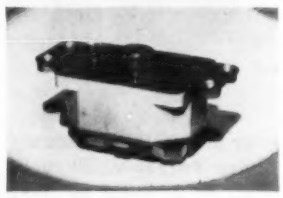
GEARMOTOR
reducer ratios up to 1478:1



Motor capacities from 1 to 75 hp are offered in Line-O-Drive gearmotors which feature quick motor replacement. Only four bolts are loosened to free motor from end shelf and to uncouple flexible coupling. Reducer types have output speeds from 350 to 7½ rpm. Double and triple reduction units are available in foot and flange mountings, vertical or horizontal. Speed reducer ratios up to 1478:1 can be changed with standardized drive components. Units incorporate a flexible coupling that absorbs misalignment and end float through rocking action of the hubs in the sleeve. Made by **Howell Electric Motors Co.**, Howell, Mich.

For more details circle NED-210 H7 on enclosed inquiry slip

CIRCUIT BREAKERS
105-200 amp units resist shock



High shock and vibration resistance is built into Klixon C7855 heavy duty circuit breakers for aircraft, trucks, busses, transformers and ground-powered generating equipment. Units weigh 7.5 oz and have the snap-acting Spencer disk as the actuating element. Ratings range from 105 to 200 amp. Automatic and manual reset types operate at predetermined current overload. Made by **Metals & Controls Corp.**, Spencer Thermostat Div., 1500 Forest St., Attleboro, Mass.

For more details circle NED-211 H7 on enclosed inquiry slip

CENTRIFUGAL PUMP
is vertical submerged type

Integral ⅛-hp three-phase or 1/10-hp single-phase motor powers the Midget Hi-Flow vertical submerged type centrifugal pump. Continuous duty motor is totally enclosed and has an NEMA standard flat face mounting. Unit is designed for immersion in liquid to a depth of 5¾ in. with motor mounted 2 in. above maximum liquid level. Pump is suited for machine tool or light transfer work where dirt or abrasives may be present in the liquid. Liquids up to 300 Ssu viscosity can be handled. Water discharge is 13 gpm with 4 ft head or 1½ gpm with 16 ft head. Made by **Brown & Sharpe Mfg. Co.**, Dept. 43, Providence 1, R. I.

For more details circle NED-212 H7 on enclosed inquiry slip

Specify NAYLOR PIPE and PIPE FITTINGS

TO SPEED THE JOB AND CUT COSTS

WATER LINES
AIR LINES
GAS LINES
COMPRESSED AIR LINES
VENTILATING LINES
PROCESS LINES
PNEUMATIC CONVEYORS
SLUDGE LINES
VACUUM LINES
DRAINAGE LINES

Here is a lightweight pipe with extra strength and safety to handle jobs normally requiring heavier-wall pipe. Its exclusive spiral-lock construction acts as a continuous expansion joint—absorbs shock loads, stresses and strains. Sizes range from 4" to 30" in diameter. All types of fittings, fabrications and connections including one-piece Naylor Wedgelock couplings to speed installation and cut costs. Available in steel, alloys and stainless steel.

Write for Bulletins No. 507 and No. 525

NAYLOR

Naylor Pipe Company
1247 East 92nd Street
Chicago 19, Illinois

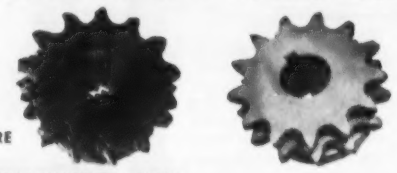
Eastern U. S. and Foreign Sales Office
60 East 42nd St.,
New York 17, N. Y.

For more details circle NED-213 H7 on enclosed inquiry slip

BROOKS NEW COLD SOLVENT CLEANER

Formula 780

SAFE • FAST • ECONOMICAL



FORMULA 780 is effective for use in many applications, both maintenance and production. Ideal for cleaning motors, electrical equipment, tools, machinery, gears, bearings and other maintenance parts.

SAFE TO USE . . . . High flash point minimizes fire risk
Low vapor toxicity and vapor pressure
WORKS FASTER . . . Dries quickly when used on any metal
Leaves clean, film free surface
EASY TO USE . . . . May be used to wipe, dip or spray
ECONOMICAL . . . . Needs no special safety equipment
High solvency power . . . less needed

ASK FOR PRODUCT DATA SHEET No. 013

BROOKS Chemicals, Incorporated
PLANTS
3304 East 87th Street CLEVELAND 27, OHIO
461 Cumberland Avenue HAMILTON, ONTARIO
OFFICES IN PRINCIPAL INDUSTRIAL CITIES
SINCE 1876

For more details circle NED-214 H7 on enclosed inquiry slip

CUT ANY REFRACTORY SHAPE
ARCH-SKEW-KEY-WEDGE WITH THE ALL-NEW-

Clipper "SAILS RIGHT THRU"®

SUPERMATIC MASONRY SAW
with STA-LEVEL HEAD *and* HI-LO CONTROL WHEEL

NO ADJUSTMENTS TO MAKE
No Need to Turn Off Motor to Raise or Lower Cutting Head . . Ready to Cut at Any Height From 0" to 17" . . . No Levers or Knobs to Pull. No Gears, No Slides or Unnecessary Parts to Wear Out!

YOU NAME IT THE SAW— THE JOB— THE MATERIAL—

. . . Clipper will name the Best Premium Quality Blade . . . Break - Resistant, Abrasive or Diamond, to give you the Fastest Cut . . . at the Lowest Cost . . . with the Greatest Ease . . . Anytime . . . Anywhere! Mail the coupon or call your Clipper Factory Trained Representative for Same Day Service!

Clipper also builds the famous **"Select-A-Notch"** Masonry Saw—the Saw that one man can adjust from his cutting position, priced from **$335**

ORDER YOUR CLIPPER MASONRY SAW ON FREE TRIAL!

Mr. Clipper

Genuine Clipper Products Sold Direct—Immediate Shipment From Factory Branches Coast To Coast

CLIPPER MANUFACTURING CO.
27 E. 28TH ST. • KANSAS CITY 8, MO. 236X

☐ Ship a SUPERMATIC Masonry Saw on FREE TRIAL
☐ Send FREE literature on Clipper Super-Matic and Select-A-Notch Masonry Saws
☐ Send information on Clipper Premium Quality Diamond, Break-Resistant and Abrasive Blades
☐ Send my Clipper Factory Trained Representative to see me

NAME _____
ADDRESS _____
CITY, STATE _____

For more details circle NED-215 H7 on enclosed inquiry slip

Tying odd shapes?

These tubular-shape, flared-end fire bricks, called tuyeres, virtually defy solid packaging. But not when you have USS GERRARD Flat Steel Strapping. Two straps rigidly reinforce the package, speed up handling time, increase storage space and practically eliminate shipping damage.

Do you have a difficult packaging problem? Give us a crack at it. Meantime, send for a free copy of USS GERRARD'S new 36-page Blue Book of Packaging.

GERRARD STEEL STRAPPING DIVISION, UNITED STATES STEEL CORPORATION
4717 South Richmond Street, Chicago 32, Ill.

USS GERRARD
ROUND STEEL STRAPPING FLAT STEEL
UNITED STATES STEEL

For more details circle NED-216 H7 on enclosed inquiry slip

versatility plus with

S-N 4-1
REVERSING TRANSMISSIONS

Applications unlimited. Two models of this new type of reversing transmission offer the design engineer limitless possibilities in the design or redesign of agricultural, materials handling, machine tool or construction equipment. Combining forward—neutral—reverse—speed reduction in a single compact unit featuring smooth reversing, *under full load* if needed. These units are ideal for use with any equipment requiring power transmission up to 28 HP.

SPECIFICATIONS

MODEL 5108
Reduction ratio—3.75:1 both directions
Power transmission—up to 8 HP
Maximum input torque—320 pound inches
Maximum input speed—2000 RPM
Dimensions—9 1/16" long, 10" wide, 10 1/8" high

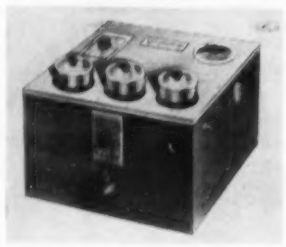
MODEL 5201
Reduction ratio—3.16:1 both directions
Power transmission—up to 28 HP
Maximum input torque—1000 pound inches
Maximum input speed—2000 RPM
Dimensions—11 1/2" long, 12 1/2" wide, 14 1/8" high

For complete recommendations on specific applications write or call our engineering department. Literature gladly sent upon request.

SNOW-NABSTEDT
Transmission Engineers
FOR HALF A CENTURY
"MAKERS OF JOE'S GEARS"
THE SNOW-NABSTEDT GEAR CORP. HAMDEN, CONN.

For more details circle NED-217 H7 on enclosed inquiry slip

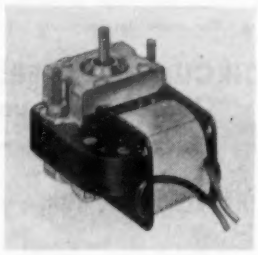
ULTRASONIC CLEANER
cleans, dries intricate parts



Lightweight, compact Marshall ultrasonic cleaning machine cleans, rinses and dries small, intricate parts that are usually difficult to clean. Diesel spray tips, electric razor heads, hypodermic needles, instrument and watch parts are typical. Unit consists of cleaning transducer, dip type rinse, rinsing transducer and automatic drying spinner with heat control. Made by **C. & E. Marshall Co.**, Dept. NED, Box 7737, Chicago 80, Ill.

For more details circle NED-218 H7 on enclosed inquiry slip

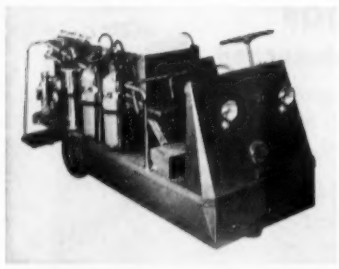
SHADED-POLE MOTOR
115-v self-lubricating type



"Camel" bearing with packing that retains its lubricant almost indefinitely adapts the 402 series shaded-pole motor for applications where inaccessibility and hard use are factors. The permanent self-lubricating bearing provides automatic oil circulation, even under high temperatures. Motor has standard mounting holes and is available in twelve 115-v, 60-cycle models with ratings from 1/500 to 1/40-hp at 3000 rpm and starting torques from 0.58 to 4.9 oz-in. Made by **Controls Co. of America,** 9570 Soreng Ave., Schiller Park, Ill.

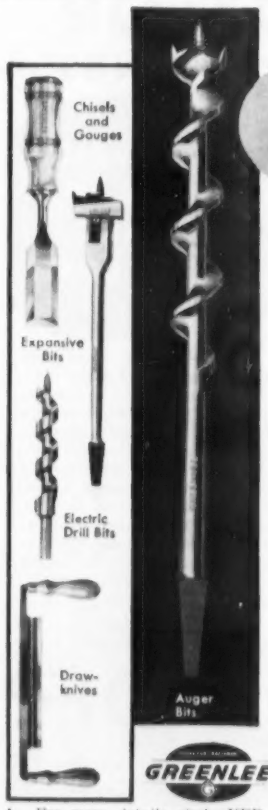
For more details circle NED-219 H7 on enclosed inquiry slip

INDUSTRIAL FIRE TRUCK
carries 4 to 5 men and equipment



In-plant or plant-site fires can be fought by this three-wheel, electric-powered industrial fire truck which can reach areas inaccessible to standard vehicles. It can carry four or five men, plus 1 ton of fire fighting equipment, yet can make 90-degree turns in one swing in 7-ft aisles. Automatic lights and siren go on when the stand-up driver steps on the safety treadle. The brake sets and power is cut off when he steps off the truck. Three nozzles, 200 ft or more of hose, six to eight large and two to six small extinguishers, asbestos gloves, blankets, axes, flashlights and helmets can be carried. Made by **Victor Adding Machine Co.,** Electri-Car Div., 3900 N. Rockwell St., Chicago 18, Ill.

For more details circle NED-220 H7 on enclosed inquiry slip



quite a bit BETTER!

Between an ordinary tool and a fine one there is quite a bit of difference. The moment you pick up a tool like the GREENLEE 22 Solid-Center Auger Bit, you *feel* that difference . . . the extra workmanship, the proper heat-treating . . . for better cutting edges, greater strength, longer life. And as the days of faster, better work add up, you realize how that difference adds up. It's just about the surest thing a tool buyer can invest in!

WRITE FOR CATALOG
of Greenlee assured-quality hand tools

GREENLEE
GREENLEE TOOL CO.
1948 Herbert Ave., Rockford, Illinois

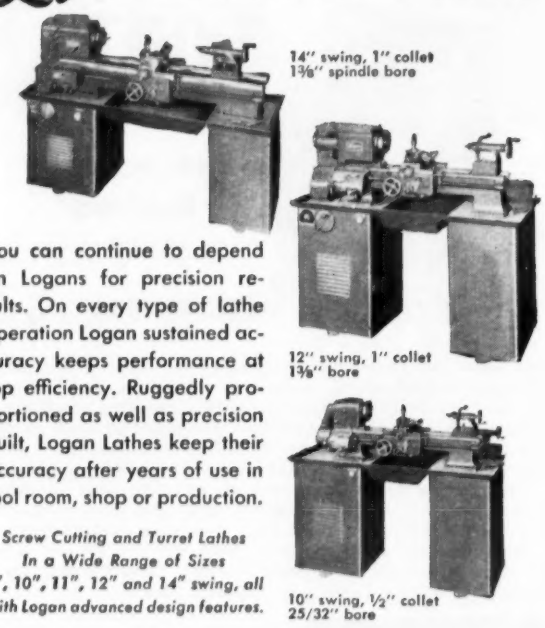
For more details circle NED-221 H7 on enclosed inquiry slip

Rotary
OILDRAULIC POWER
Cuts the cost of lifting heavy loads

Write for catalogs
ROTARY LIFT CO., 1097 KENTUCKY, MEMPHIS, TENN.

For more details circle NED-222 H7 on enclosed inquiry slip

Logan THE LATHES FOR SUSTAINED ACCURACY



You can continue to depend on Logans for precision results. On every type of lathe operation Logan sustained accuracy keeps performance at top efficiency. Ruggedly proportioned as well as precision built, Logan Lathes keep their accuracy after years of use in tool room, shop or production.

Screw Cutting and Turret Lathes In a Wide Range of Sizes 9", 10", 11", 12" and 14" swing, all with Logan advanced design features.

See your Logan dealer, or write for catalog information.

LOGAN ENGINEERING CO.
4901 West Lawrence Avenue, Chicago 30, Illinois

For more details circle NED-223 H7 on enclosed inquiry slip

NEW Bulletin 712 Combination Starters with "Safe" visible contact disconnect switch

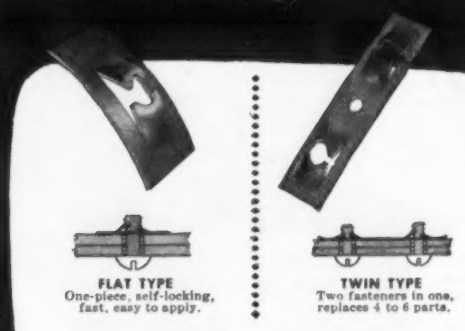
Allen-Bradley's new Bulletin 712 Combination Starters remove all doubt whether ALL lines are clear when the disconnect switch is in OFF position, because the contacts are out in plain view, as illustrated above. Unauthorized persons cannot open the door without moving handle to OFF, and handle can be locked OFF or ON with up to three padlocks. Specify A-B combination starters for maximum safety. Available from 1 to 100 hp, 220 v; 200 hp, 440-550 v

Allen-Bradley Co., 1334 S. Second St., Milwaukee 4, Wis.
In Canada—Allen-Bradley Canada Ltd., Galt, Ont.

ALLEN-BRADLEY
SOLENOID MOTOR CONTROL
QUALITY

For more details circle NED-224 H7 on enclosed inquiry slip

SAVE IMPORTANT ASSEMBLY DOLLARS with Tinnerman Speed Nuts®



Any product can be assembled faster, easier, better with Tinnerman SPEED NUT brand fasteners. Here's why. SPEED NUTS are one-piece, self-locking spring steel fasteners. They eliminate lock washers, spanner washers, reduce parts handling and provide lightning-fast, vibration-proof attachments. Over 8,000 different shapes and sizes are available to help you cut assembly costs. Write for free descriptive literature.

TINNERMAN PRODUCTS, INC.
BOX 6688, DEPT. 12, CLEVELAND 1, OHIO

For more details circle NED-225 H7 on enclosed inquiry slip

SAVE TIME, WORK and MONEY with ...
STEPHENS-ADAMSON STANDARD INDUSTRIAL PRODUCTS

SA offers a complete line of time-tested industrial products that are STOCK ITEMS and available for IMMEDIATE DELIVERY. You'll find these products a real aid in modernizing plant operations and reducing operating costs. All are designed to increase manpower efficiency and productivity with added working safety.

IN STOCK FOR IMMEDIATE DELIVERY

FREE CATALOG
WRITE TODAY for Catalog No. 60 . . . contains comprehensive data on the complete line of "cost-saving" S-A Standard Industrial Products.

STANDARD PRODUCTS DIVISION
STEPHENS-ADAMSON MFG. CO.
12 Ridgeway Ave. Aurora, Illinois

For more details circle NED-226 H7 on enclosed inquiry slip

ROTARY SOLENOID
operates in 500° F ambients

Life expectancy of the Ledex rotary solenoid is 300,000 snap-action operations at 500° F ambient temperature. It is adaptable for many remote control problems involving high temperatures, including various guided missile applications. Magnetic action moves armature along solenoid axis. This action is converted into rotary motion by means of ball bearings on inclined races. Eight basic sizes range from 1 to 3⅜ in. in diameter. Starting torques for 45-degree stroke range from 0.2 to 54 lb-in. Made by **G. H. Leland, Inc.**, 146 Webster St., Dayton 2, O.

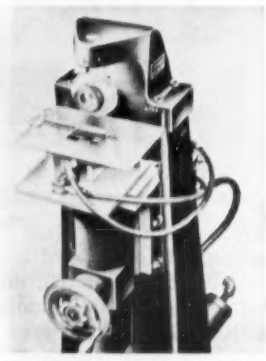
For more details circle NED-227 H7 on enclosed inquiry slip

PLANT FEEDING PLAN
for round-the-clock food service

Round-the-clock food service through automatic food dispensing equipment, augmented by manual snack bar during peak periods, is afforded by "packaged plan" for in-plant feeding. Service is currently being offered to plants with 500 or more employees, requires no capital investment and includes complete insurance. In a typical installation, several hundred employees can be served juices, sandwiches, pies and pastries, hot soups, stews and beverages on a 24-hour basis, with a snack bar, operated by one man, serving frankfurter and hamburger sandwiches, hot plates and specials for the day during peak feeding hours. Service includes analysis of employee feeding requirements, aid in selecting location for food dispensers, installation, service and operation of dispensers and design and installation of snack bar. Offered by **ABC Vending Corp.**, Dept. 1, 50-01 Northern Blvd., Long Island City 1, N. Y.

For more details circle NED-228 H7 on enclosed inquiry slip

MARKING PRESS
floor model operates on air

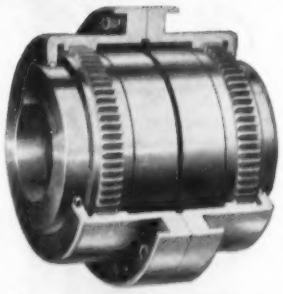


Nameplates from 1/32-in. thick to die components and other parts up to 4 in. thick can be marked by this Power Detail stamping machine. Operating on 20 to 40-psi compressed air, it can be equipped with 1/16 to ¼-in. character dials. They are changed in 3 minutes. Dials are engraved with 27 letters, 10 figures, period, fraction line and dash. Made by **Geo. T. Schmidt, Inc.**, 1800 W. Belle Plaine Ave., Chicago 13, Ill.

For more details circle NED-229 H7 on enclosed inquiry slip

LINK-BELT geared flexible couplings

transmit more hp per coupling dollar



Combining compactness and high load capacity, Link-Belt geared flexible couplings provide low-cost, positive power transmission. Size for size, dollar for dollar, they will accommodate larger, more powerful shafts than other flexible couplings.

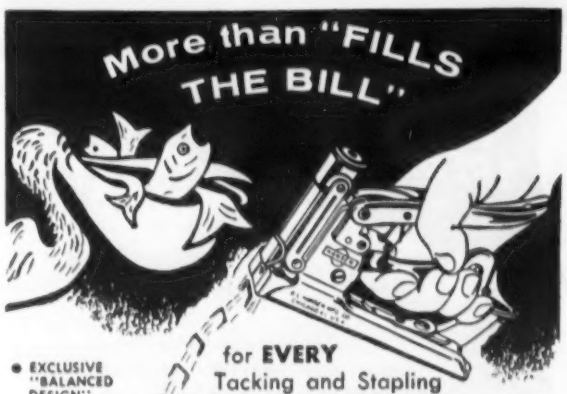
Precision-cut gear teeth assure reliable performance. Shaft misalignment and end float, reversing loads and high speed are all handled effectively. Popular sizes with finished bores are available "off the shelf". . . packaged and ready for installation.

For complete facts, contact your Link-Belt sales office or distributor. Or write for Folder 2775 to Link-Belt Company, Dept. N.E.D., Prudential Plaza, Chicago 1, Illinois.

LINK-BELT
GEARED FLEXIBLE COUPLINGS

14.567

For more details circle NED-230 H7 on enclosed inquiry slip



- EXCLUSIVE "BALANCED DESIGN" by HANSEN
- PRECISION BUILT TO HIGH STANDARDS
- SPLIT-SECOND AUTOMATIC REPEATER ACTION
- FINGER-TIP TRIGGER-TYPE RELEASE
- RUGGED ALL-STEEL CONSTRUCTION

for EVERY Tacking and Stapling Requirement HANSEN offers the most complete line!

There are 36 different models with 80 staple sizes from which you may select the HANSEN Automatic High Speed Tacker that has been scientifically designed for your particular need. There is no job too difficult for a HANSEN One-Hand Tacker! Adaptable to countless uses and applications in your business.

You're paying for the best . . . Why not specify it by name — HANSEN

Request your free booklet today!

A. L. HANSEN MFG. CO.
5164 RAVENSWOOD AVE. CHICAGO 40, ILL.

For more details circle NED-231 H7 on enclosed inquiry slip

Washington Canners Cooperative Association, Vancouver, Washington operates a 14-truck fleet of L-S Model "E" Electrics. Complete operational costs for the last 10 years show an average cost of only $1.87 per truck per day — or less than ¼ former gas truck costs!

L-S Model "E" is clean, silent, fumeless for indoor work. Lift heights to 145". Capacities to 4000 lbs. 48" load length. Write to:

L-S LEWIS-SHEPARD®
The most complete line of materials handling equipment anywhere
The "MASTER" Line 178 Walnut St., Watertown 72, Mass.

For more details circle NED-232 H7 on enclosed inquiry slip

MAKE YOUR OWN SOUND MOVIES . . . THIS EASY, INEXPENSIVE WAY

Here, in one compact, portable unit is all you need to make your own sound movies.

This new Kodascope Pageant Sound Projector, Magnetic-Optical, is both a superb sound projector *and recorder*.

Take any kind of 16mm film, sound or silent, and have a magnetic striping added for about 2½¢ per foot. Then run it through your Magnetic-Optical and record *your* own sound.

Mix voice with music, add from other sound sources, record on the spot, blend automatically. Erase, alter, re-use the magnetic stripe at will. Change your message to fit special groups, as often as you wish.

And *project* every kind of 16mm film (sound or silent) with the same ease, brilliance, fine tone, and freedom from maintenance that you get from *every* Pageant.

Interested? Write for full details.

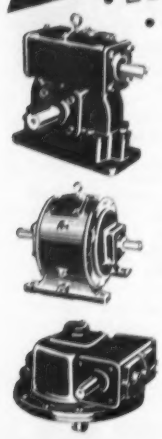
EASTMAN KODAK COMPANY
Rochester 4, N. Y.

Kodak

For more details circle NED-233 H7 on enclosed inquiry slip

Abart SPEED REDUCERS for

• ECONOMY • ACCURACY • LONG SERVICE-LIFE •



Horizontal or vertical drives; inputs from either side; right, left, top or bottom outputs. A size and type for every application. Ratings from 1/20 to 400 h.p. Ratios up to 10,000 to 1.

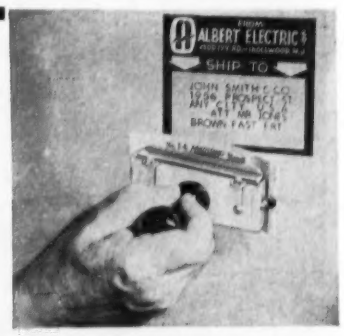
Compact precision-built Abart Speed Reducers make the most of your power. Simplified trouble-free design and construction assure lower operating and maintenance costs.

Write today for Abart's fact-packed pocket size speed reducer catalog. See the results of 30 years of careful specialized study on thousands of speed reduction problems.

ABART GEAR and MACHINE CO.
4831 WEST 16th STREET • CHICAGO 50, ILLINOIS

For more details circle NED-234 H7 on enclosed inquiry slip

The Quick . . Accurate Way to Address Shipping Cartons



PRINT DIRECT

The MULTISTAMP Hand Stamp Stencil Duplicator prints shipping data direct on cartons, boxes, packages, and eliminates double operation of preparing labels and then pasting them on the containers. Handy as a rubber stamp . . . fully portable, non-mechanical, no moving parts to wear. Get 1,000 or more clear sharp impressions from one typewritten or handwritten inexpensive stencil without re-inking. In photo above, shipper's name, address and "Ship To" label frame were preprinted by carton manufacturer.

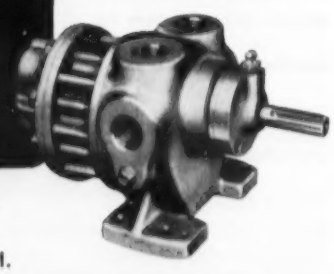
Also for addressing shipping tags and labels . . . prints postcards, menus, forms, bulletins. 8 complete outfits: $9.50 to $99.50, including supplies (fob. factory). At office or shipping room supply dealers.

OVER 35 YEARS MULTISTAMP STENCIL DUPLICATOR
MANUFACTURED ONLY BY THE MULTISTAMP CO. NORFOLK, VIRGINIA

For more details circle NED-235 H7 on enclosed inquiry slip

ROPER SERIES F

WITH 4-PORT DESIGN FOR 8 OPTIONAL ARRANGEMENTS



PUMP CLEAN LIQUIDS OF ALL KINDS AT PRESSURES TO 300 P.S.I. . . . 1 to 300 G.P.M. SIZES

Pumps that give *positive power* for hydraulic circuits. Installation time and design problems reduced because 4-port feature offers eight optional piping arrangements (4 for CW and 4 for CCW rotation). Supplied with or without relief valve . . . with packed box or mechanical seal.

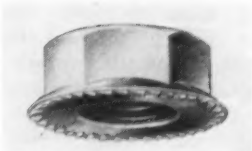
Mechanical Seal
Ideal where repacking is not convenient.

Send for Catalog
GEO. D. ROPER CORP.
668 Blackhawk Park Ave.
Rockford, Illinois

ROPER Rotary Pumps

For more details circle NED-236 H7 on enclosed inquiry slip

SPIN-LOCK NUTS have ratchet-like teeth for holding



Ratchet-like tooth structure on the Spin-Lock nut bites into bearing surface of the metal to be joined and resists any tendency to loosen. Fastener thus combines function of nut and lock washer in one piece. Available sizes range from No. 8 to ½-in. Fastener is quickly assembled and need not be adjusted or positioned. Teeth provide excellent contact for electric equipment. Nuts are hardened to carry heavy loads and teeth will not deform in use. Variety of head styles are available. Made by **Russell, Burdsall & Ward Bolt & Nut Co.**, 98 Midland Ave., Port Chester, N. Y.

For more details circle NED-237 H7 on enclosed inquiry slip

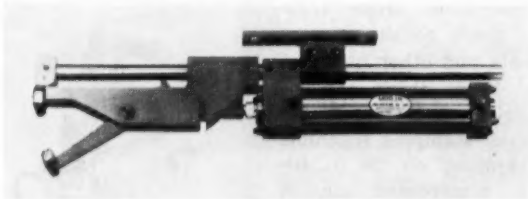
FIBER TOTE BOXES molded units are waterproof

Surface coatings of plastic or paint are optional on Totems one-piece molded paper fiber tote boxes, available in several chemical impregnations, including resins. They have molded handles, can be nested when empty, and are waterproof, oil and grease resistant and noncorrosive. Loads up to 100 lb can be handled. Various standard sizes or special shapes to requirement are available. A 16 x 10 x 6-in. size costs 69 cents. Made by **Arvey Corp.**, Fibre Forming Div., Dept. NED, 202 Franklin St., Olean, N. Y.

For more details circle NED-238 H7 on enclosed inquiry slip

PRESS UNLOADING DEVICE gripping force increased 40 per cent

Improved jaw cylinder and smaller jaw design increases gripping force of this Iron Hand press unloading device by 40 per cent. Steel inserts, which



are self-clinging when jaw is closed, are easily replaced without use of cotter key or soldering. Piston rod is chrome-plated, and Sahlin-type rod end piece allows jaw to float independently of cylinder, eliminating tendency to bind as well as back-pin failure. Back cylinder cushion can be quickly replaced. Made by **Sahlin Engineering Co.**, Dept. NED, Box 289, Birmingham, Mich.

For more details circle NED-239 H7 on enclosed inquiry slip

Self-Powered COMBINATION SCRUBBER-VAC

Cleans Vast-Area Floors "By the Mile"

Monoxide Eliminator, Powder Dispenser, and Rinse Assembly are accessories

This *gasoline-powered* unit, *Finnell's 218G*, applies the cleanser, scrubs, flush-rinses, and picks up (damp-dries the floor)—*all in one operation!* Independence from power lines permits the machine to go wherever the operator guides it...working in and out of production areas with ease . . . *scrubbing continuously.* No switches to set for *fast* or *slow*, and *one engine* operates all working parts. Brush spread, 36". Also 18" and 30" sizes. All three in *gasoline* or *propane*. *Electric* models to meet specific needs. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 5508 East Street, Elkhart, Indiana.

• Coverage up to 24,400 sq. ft. per hour!
• Mounts a SELF-STARTING gasoline engine

FINNELL SYSTEM, INC.
Originators of Power Scrubbing and Polishing Machines
FINNELL
BRANCHES IN ALL PRINCIPAL CITIES

For more details circle NED-240 H7 on enclosed inquiry slip

NEW SIMPLICITY UNIT GREATLY SPEEDS WASHING OF SMALL PRODUCTION PARTS

Although it will not damage even delicate threads and flanges, this new Simplicity Parts Washer forces washing solution into every opening of machined parts . . . even blind drillings and slots. Combines production speed with hand-washed thoroughness.

Serves as a quencher for heat-treated pieces; for degreasing metal stampings, as well. For further facts write to:

187

Ask for Bulletin No. 104

Simplicity TRADE MARK REGISTERED
ENGINEERING COMPANY • DURAND 15, MICH.
FOR CANADA: Simplicity Materials Handling Limited, Guelph, Ontario

For more details circle NED-241 H7 on enclosed inquiry slip

WHAT'S NEW IN MOTOR CONTROL?

CUTLER-HAMMER 9101 MOTOR SWITCHES ANSWER EVERY SMALL MOTOR NEED

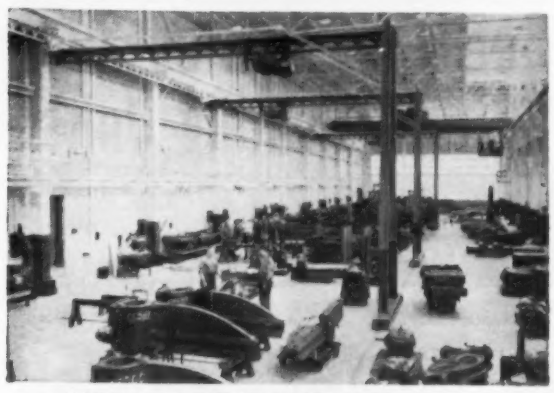
If you want to *protect*, as well as start and stop, any electric motor rated up to 1 HP, you can find exactly what you need within the new "family" of Cutler-Hammer 9101 Motor Switches. There are surface mounted units, special service enclosures, and the amazing open type units so compact they may be mounted flush in standard wall-switch outlet boxes. All are available in many forms, with indicating lights, transfer switches, dual motor switch constructions, etc. Authorized Cutler-Hammer Distributors and better electrical supply stores everywhere stock both single pole and two pole types. For full information on this line write for Pub. EE-78. CUTLER-HAMMER, Inc., 1377 St. Paul Ave., Milwaukee 1, Wisconsin.

Open type 9101 with plate for flush mtg. in ordinary wall box.

CUTLER-HAMMER MOTOR CONTROL C-H

GET IT FIRST IN CUTLER-HAMMER

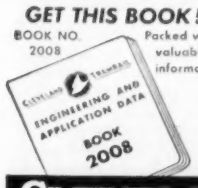
For more details circle NED-242 H7 on enclosed inquiry slip



SINGLE LEG GANTRIES . . .
Little Cranes that Speed Production

Skilled workers often wait five or ten minutes and more for crane service. By providing a sufficient number of gantry cranes, much or all of this lost time can be eliminated and production aided. Gantry cranes are inexpensive; several can usually be purchased for less than the price of an additional large overhead crane and far better handling service provided.

GET THIS BOOK!



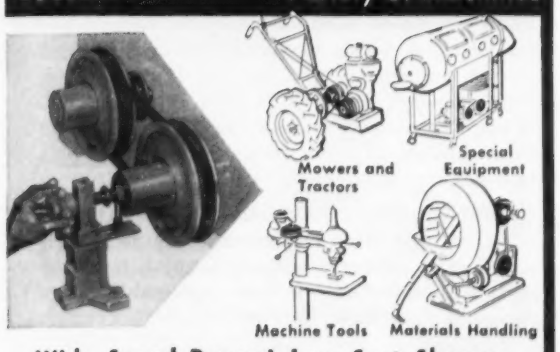
CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
6613 E. 285th St., Wickliffe, Ohio

CLEVELAND TRAMRAIL

For more details circle NED-243 H7 on enclosed inquiry slip

For more details circle NED-244 H7 on enclosed inquiry slip

SPEED SELECTOR
VARIABLE PITCH SHEAVES
Control Speeds on Variety of Machines



Wide Speed Range! Low Cost Sheaves

Speed Selector Sheaves can give your machines or equipment extra wide-range speed control on fixed centers. Efficient, rugged, simple to use — low in cost! Write for Illustrated Bulletin.

CATALOG FREE! WRITE TODAY

SPEED SELECTOR INC.
P.O. BOX 312-N • CHAGRIN FALLS, OHIO

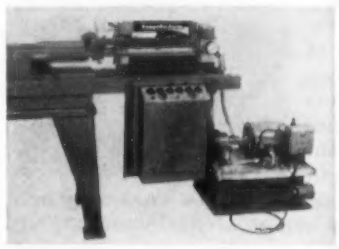
For more details circle NED-245 H7 on enclosed inquiry slip

SAFETY BLOWGUN
clears away cuttings and dust

Working surfaces and parts can be quickly cleared of waste cuttings, dust and particles with the Safe-T-Air blowgun. Whenever trigger is depressed, 40 per cent of the air intake forms a protective cone-shaped screen to shield operator from flyback of particles. Tool is made by **E. V. Nielsen, Inc.**, 135 Broad St., Stamford, Conn.

For more details circle NED-246 H7 on enclosed inquiry slip

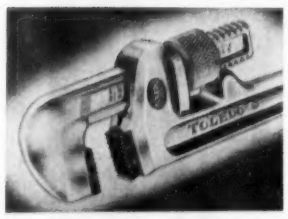
TURRET DRIVE
powers self-indexing lathes



Self-indexing lathes from bench size up to No. 5 turret type can be powered by the Acme Hydrive hydraulically operated turret drive. Production increases up to 100 per cent are reported with this drive unit. It is used to automate the turret, feed the cross-slide, change spindle speed, advance bar stock, reverse direction of spindle rotation for tapping, and open and close the collet. Unit reduces operator fatigue and makes it possible for one man to handle two machines, or check and inspect parts while lathe is running. Made by **Acme Industrial Co.**, 213 N. Laflin St., Chicago 7, Ill.

For more details circle NED-247 H7 on enclosed inquiry slip

ALUMINUM PIPE WRENCHES
10, 14, 18, 24 and 36-in. sizes



Forged aluminum handle, housing and hook with replaceable forged steel insert jaws and forged heavy duty nut are features of 10, 14 and 18-in. heavy duty aluminum pipe wrenches. Choice of forged aluminum housing and handle, forged aluminum hook with forged steel replaceable jaw inserts or forged steel hook is offered on 24 and 36-in. sizes. All sizes can be supplied with replaceable insert jaws of nonsparking beryllium copper. Weight is less than half that of comparable malleable or steel wrenches. Made by **Toledo Pipe Threading Machine Co.**, Dept. NED, 1445 Summit St., Toledo 4, O.

For more details circle NED-248 H7 on enclosed inquiry slip

for Plant SAFETY and Worker PROTECTION insist on GRANET Industrial Gloves

Whatever the hazards in your plant, GRANET has the industrial glove for PROTECTION in handling acids, alkalies, caustics, greases, wet or dry chemicals — and for SAFETY when handling rough or abrasive materials.

Competitively priced — and with GRANET's *exclusive* supersensitive *controlled production, quality* is *built in* to give *maximum wear* per dollar.

Available in Neoprene, Rubber or Plastic, either full or palm coated, GRANET industrial GLOVES are stocked by industrial distributors from *coast to coast*. Write for name of one nearest you.

To wear-test GRANET industrial GLOVES in your own plant, write for sample pair on your company letterhead. State type of materials to be handled.

GRANET
THE GRANET CORP.
15 LORING DRIVE, FRAMINGHAM, MASS.

For more details circle NED-249 H7 on enclosed inquiry slip

2000 lbs. of *LIFT* for $215.00
DAYTON ROGERS
LIFT-A-LOAD
Portable elevating table SHOP TRUCK

The answer to your . . .
TOOL • DIE • MATERIAL HANDLING PROBLEMS

If you have to raise, lower or move a load, check these features:

- √ 3-Table working, storing surface
- √ Adjustable height
- √ 2 Elevating speeds
- √ Handles odd shapes
- √ 4-Post load stability
- √ Dependable floor lock
- √ Self-locking load screws
- √ Optional roller conveyor or angle-set top

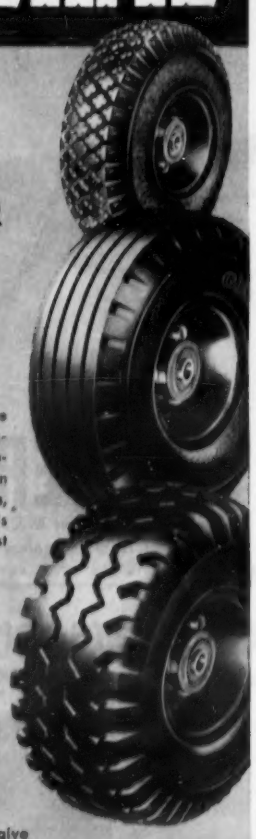
WRITE FOR LIFT-A-LOAD BULLETIN F-217

LIFT-A-LOAD SPECIFICATIONS
Height retracted: 24" Height elevated: 42"
Table top dimensions: 25" x 37"
Weight: 270 lbs. Wheels: 8" diam.

DAYTON ROGERS
Manufacturing Company
Minneapolis 7E, Minnesota

For more details circle NED-250 H7 on enclosed inquiry slip

GENERAL



Wide-Base Pneumatics THE ANSWER TO LOWER OPERATING COSTS

For peak high-speed performance you can't beat dependable, long-wearing General Wide-Base Pneumatics. They give you high flotation for easier rolling over all surfaces, cushion equipment and loads against damage, save high-cost floors and floor surfaces.

Saves Time and Money at any Speed — Anytime!

General Wide-Base Pneumatics give you every cost-saving advantage at every speed . . . on every job. Available separately or in assemblies of tires, tubes and wheels. Size O.D. 8" to 35"—200 to 7890 lbs. capacity for low or high speeds.

THE GENERAL TIRE

Rigid CASTER FORKS

Wide-base caster forks engineered to carry heavier loads without adding dead weight to equipment. Available in identical pairs in a wide range of sizes.

Swivel

SEND FOR CATALOG, DEPT. 4

THE GENERAL TIRE & RUBBER CO.
AKRON, OHIO

For more details circle NED-251 H7 on enclosed inquiry slip

Here's TURBO COOLING for large areas

EMERSON-ELECTRIC Air Circulators

✓Low Initial Cost ✓Low Operating Cost

Efficient . . . quiet . . . and economical. Prelubricated Emerson-Electric motors drive deep-pitched blades to move large volumes of air.

Mountings available for floor, counter, ceiling, wall.

Write for Bulletin No. 2027, The Emerson Electric Mfg. Co., St. Louis 21, Mo.

Direct-Drive Exhaust Fans

Remove stale air, heat, steam and dust from your plant. Step up employee efficiency, cut down labor costs . . . install Emerson-Electric Direct-Drive Exhaust Fans.

EMERSON-ELECTRIC of St. Louis Since 1890

For more details circle NED-252 H7 on enclosed inquiry slip

PALMER *presents*

an outstanding improvement in

DIAL THERMOMETERS

- No Sector
- No Pinion
- No Linkage
- Constant Accuracy
- Easy Readability

external calibration

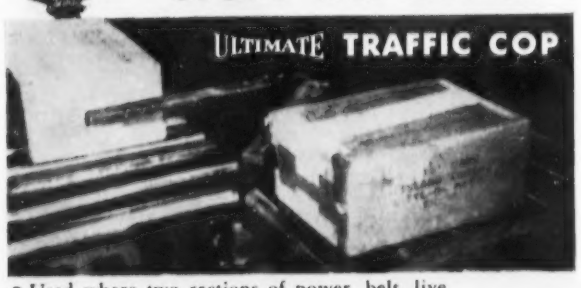
Full 3½" Dial Face

WRITE FOR BULLETIN 350

PALMER THERMOMETERS, INC.
Norwood Ave., Cincinnati 12, Ohio
Mfrs. of Industrial Laboratory Recording and Dial Thermometers

For more details circle NED-253 H7 on enclosed inquiry slip

LETS ONE LINE MOVE, STOPS THE OTHER



• Used where two sections of power, belt, live roller or chain conveyor converge, the Ultimate Traffic Cop permits one case, can, carton or box to pass on one line while the other line is stopped by the arm. When flow of material ceases, or sufficient gap occurs on line, material on other line passes.

FREE!

MAIL THIS COUPON

ISLAND EQUIPMENT CORP. Dept. NED 8
27-01 Bridge Plaza North
Long Island City 1, N. Y.

Please send Bulletin TC-1 describing the ULTIMATE TRAFFIC COP.

COMPANY.....
BY.....
ADDRESS.....
CITY..... ZONE..... STATE.....

For more details circle NED-254 H7 on enclosed inquiry slip

PEN-TYPE OILER
operates in holes ⅞-in. deep

This precision fountain-pen-like oiler delivers exact amounts of oil as small as a fraction of a drop. Pin delivery point can reach into holes up to ⅞-in. deep, as well as other out-of-the-way places. It can be used vertically or horizontally. Oil supply is visible in transparent reservoir. Spring-controlled steel point is pressed against spot to be oiled, then released, ejecting a fraction of a drop. Made by **Dill Mfg. Co.**, 701 E. 82nd St., Cleveland, O.

For more details circle NED-255 H7 on enclosed inquiry slip

METAL TUBE CLOSURES
in sizes from 1½ to 4¼ in.

Standard size tube closures are self-locking for fast, secure sealing of paper, fiber and composition open-end cylinders or mailing tubes. Stamped from steel they have annular rings for strength and tapered walls with serrated edges. Assembly into cylinder ends requires only a simple wooden plug with inset Alnico magnet to pick up the closure and drive it into the tube. Tapered walls make it self-aligning and easy to insert. Sizes range from 1½ to 4¼ in. in increments to match standard paper tube sizes. Made by **Protector Products, Inc.**, Dept. NED, 2142 W. Fifteenth St., Cleveland 13, O.

For more details circle NED-256 H7 on enclosed inquiry slip

DIAMOND COLLECTOR
recovers from grinding operations

Adaptable to any type of diamond wheel grinding, this collector enables recovering an average of 30 per cent of the carats originally in the grinding wheel from the dust or swarf from mist, wick or dry grinding. Unit is installed in central collecting or unit type systems. It operates on a centrifugal principle and can be mounted on machinery, walls, overhead beams or special table. Bypass valve allows grinding wheels of other types to be used on the same grinder without contaminating the collected diamond dust. Power is furnished by a ½-hp, 3450-rpm motor. Made by **Torit Mfg. Co.**, Dept. NE, 287 Walnut St., St. Paul 2, Minn.

For more details circle NED-257 H7 on enclosed inquiry slip

Aero-Seal
THE STAR OF HOSE CLAMPS

In hose clamps, the *quality* name today as always is AERO-SEAL. We pioneered the famous precision worm gear and engineered the *extra strength* and holding power. Other clamps may LOOK like AERO-SEALS, but take a *second* look! Compare quality with price cuts and special discounts. Which pays off best? Compare the worm gear construction. Note that AERO-SEAL worms don't wobble. Look at the special rugged interlocking feature that makes AERO-SEALS hold tight – no spot welding. Note the precision gear that applies uniform pressure – does not pinch hose. Stainless steel bands, complete size range for dozens of fastening uses. Insist on genuine AERO-SEALS.

For added quick-attach advantage, get AERO-SEAL Jets. Nothing like them!

Aero-Seal REGULAR WORM GEAR HOSE CLAMPS
BREEZE CORPORATIONS INC. 700 Liberty Ave., Union, N.J.

For more details circle NED-258 H7 on enclosed inquiry slip

Get New Data on all 3 Infrared Heating Units!

Get New Bulletins Now!

fostoria

Whether you select components or complete ovens for swift, safe, sure processing . . . your one source of radiant equipment for all three sources of infrared heat is the pioneer manufacturer . . . *Fostoria.* Get better acquainted with this modern low-cost way to heat, dry, cure, bake and finish products, materials and parts. Write now and ask for "All 3 Infrared Bulletins." Address:

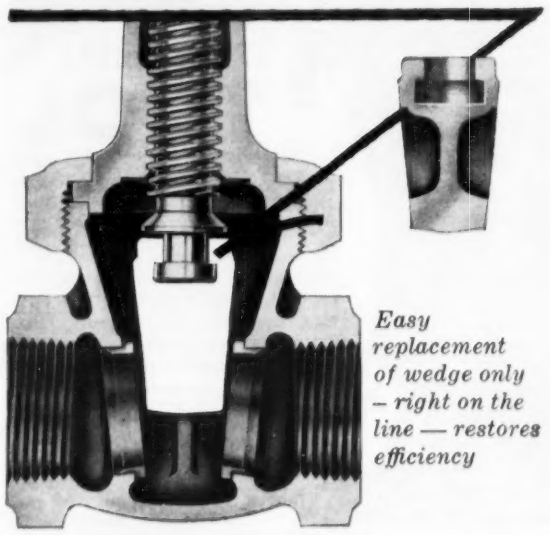
FOSTORIA PRESSED STEEL CORPORATION
Dept. 808 • Fostoria, Ohio

For more details circle NED-259 H7 on enclosed inquiry slip

In JENKINS
Monel-seated Bronze Gates

THE WEDGE TAKES THE WEAR

. . . and spares the rings



Easy replacement of wedge only – right on the line — restores efficiency

MONEL SEAT RINGS are expanded into body to assure a positive, leak-proof joint. Exhaustive tests show this permanent all-around support of rings is essential to guard against deforming, loosening, or shifting.

THE RENEWABLE WEDGE (bronze or nickel alloy) has excellent wear resistance, but has a lower degree of hardness than the heat-treated Monel rings, which have optimum resistance to erosion and corrosion as well as abrasion. Thus, wear of wedge leaves rings relatively unaffected. When necessary to renew wedge, simply remove valve bonnet, slip old wedge off, and slip on a new one.

GET PRACTICAL, LOW-COST RENEWABILITY in valves for punishing services that require Monel-seated gates. There is nothing simpler, faster, or more economical than Jenkins replaceable wedge design. Jenkins Bros., 100 Park Ave., New York 17.

JENKINS VALVES
LOOK FOR THE JENKINS DIAMOND
SINCE 1864 TRADE JENKINS MARK

For more details circle NED-260 H7 on enclosed inquiry slip

UNITABLE®
BELT CONVEYOR

For Assembly - Inspection - Packaging

The most ADAPTABLE portable conveyor you can find. Exclusive unitized design 10' to 80' lengths. Write for UNITABLE Bulletin now.

CONVEYOR SPECIALTY COMPANY INC.
37 Newport Avenue
North Quincy 71, Mass.

For more details circle NED-261 H7 on enclosed inquiry slip

Balance Rotating Parts
FASTER...EASIER

No setup, no leveling, no centering. Chilled iron discs, ground and balanced to extreme accuracy, rotate with minimum friction on special bearings. Glass-hard spindles and bearings prevent wear or ball-bearing indentations when balancing heavy weights. Superior accuracy lasts throughout the long life of the balancing ways. Proved and preferred 38 years. For information on sizes, types, and prices of Anderson Ways, write for Bulletin 8-40.

Anderson

Write for Bulletin 8-40

ANDERSON BROS. MFG. CO.
ROCKFORD, ILLINOIS

For more details circle NED-262 H7 on enclosed inquiry slip

Quickdraft...
the world's most efficient power exhauster

N-400-QD

...for industry

★ NO MOTORS, FANS OR BEARINGS IN EXHAUST LINE
★ NEEDS NO STACK
★ ACID RESISTING VITREOUS ENAMEL FINISH

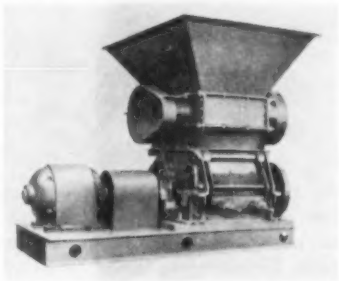
Quickdraft improves industrial exhausting and cuts maintenance costs. Its blower operates in clean or outside air . . . eliminating down-time for cleaning and replacing fan blades. Quickdraft excels in venting paint booths . . . lightweight and abrasive waste . . . cellophane cuttings . . . chemical fumes . . . corrosive gases . . . noxious fumes . . . high temperatures . . . moisture and smoke. For heating units, it maintains constant draft required for efficient and economical combustion of all fuels. *Send for engineering data . . . today.*

NOW, all sizes can be furnished with static pressures up to 10-inches . . . and in type-1 Rigid Polyvinyl Chloride for withstanding highly corrosive acids.

Quickdraft COMPANY
P. O. Box 87-L, Dueber-Hampden Bldg., Canton, O.

For more details circle NED-263 H7 on enclosed inquiry slip

METAL-TURNINGS FEEDER
fits crushers rated 1-20 tons/hour



Manual feeding of metal turnings crushers is eliminated by this feeder unit which is supported directly on the crusher. Dual star wheels feed the turnings into the crusher until amperage-demand controls signal "enough." Feed then shuts down temporarily until surge load is passed. Hopper, with 2 to 3 cu yd capacity, doubles as storage bin since feeder motor can be started under full load. Hopper fits every size crusher from 1 to 20 tons per hour. Made by **Jeffrey Mfg. Co.**, 852-99 N. Fourth St., Columbus 16, O.

For more details circle NED-264 H7 on enclosed inquiry slip

WATERLESS DECAL
self-adheres to any dry surface

The same appearance, brilliance and permanence of regular water-applied decals are embodied in a waterless, self-adhesive type which is mounted on the inside or outside of windows, or opaque surfaces. Decal is waterproof, weatherproof and will retain clean, crisp appearance. Washing and wiping will not cause edges to pull away. Made by **Midwest Decalcomania Co.**, 1241 S. State St., Chicago 5, Ill.

For more details circle NED-265 H7 on enclosed inquiry slip

LIFT TRUCK
capacity is 10,000 lb

Diesel, gasoline or LP-gas 230-cu in. engines are available in the 10,000-lb capacity **FT-100** lift truck. Designed for heavy duty work, it has a welded frame

that assures alignment of parts and a roller type "extra lift" mast with low overall lowered height. Standard ITA shaft type fork mounting carriage permits use of a wide range of standard and special attachments. Truck has a two-speed constant mesh transmission. Power shift transmission, power steering and no-spin differential which provides maximum traction for practically all working conditions are optional. Made by **Allis-Chalmers Mfg. Co.**, 918 S. 70th St., Milwaukee 1, Wis.

For more details circle NED-266 H7 on enclosed inquiry slip

Permanently End Condensation Drip, Rust and Corrosion with NoDrip Plastic Coating!

Here is the inexpensive, easy way to solve your condensation problem once and for all. NoDrip plastic coating acts immediately to insulate and protect tanks, pipes, walls, ceilings, air ducts and other metal equipment against condensation drip, rust and corrosion. NoDrip can be applied by anyone without special experience with brush, trowel or spray. NoDrip is also resistant to acid, alkali and brine...protects concrete, brick, plaster, tile, wood or composition surfaces.

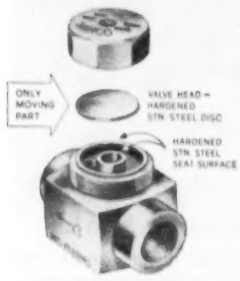
FREE

32-PAGE NoDrip DATA HANDBOOK Complete with photographs, charts and technical information to help solve your condensation problem. Write today!

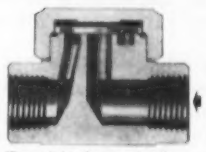
Available at leading plumbing and mill supply houses
J. W. MORTELL COMPANY 526 Burch St., Kankakee, Ill.

For more details circle NED-267 H7 on enclosed inquiry slip

STEAM TRAP MAINTENANCE CUT!



Only 3 parts



Trouble-free design

Simplest design of all virtually eliminates wear

The Sarco TD practically does away with steam trap maintenance.

Only 3 simple, rugged parts . . . all stainless steel. Only *one* moving part . . . a solid hardened stainless steel disc.

Highly resistant to superheat, water-hammer, corrosive condensate.

No mechanism . . . the kinetic energy of steam closes the valve. No narrow channels to choke. No gaskets to leak.

Ask for 60-day trial

We'll send you Sarco TD steam trap, strainer. No cost or obligation. Buy *only* if completely satisfied. Advise size—⅜, ½, ¾ or 1"—and use. Sarco Co., Inc., Empire State Bldg., N.Y.C.

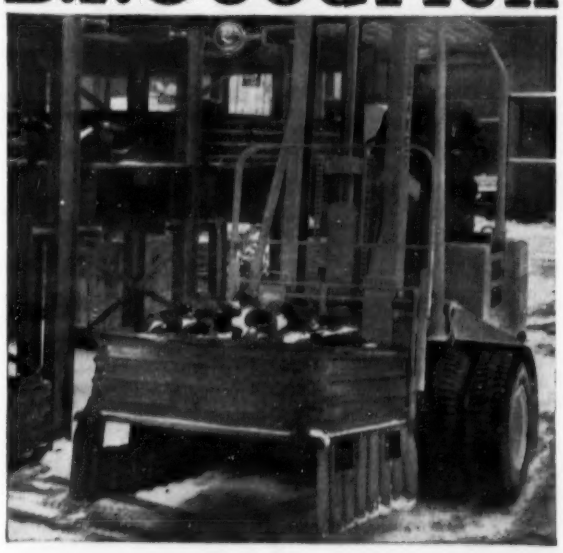
2233-F

SARCO Thermo-Dynamic STEAM TRAP

THE MODERN TRAP THAT IS MAKING STEAM TRAPPING HISTORY!

For more details circle NED-268 H7 on enclosed inquiry slip

B.F.Goodrich



New All-Purpose Pneumatic industrial tire protects floors

EXTRA traction on all hauling surfaces, indoors and outside; increased floor protection; reduced operator fatigue and equipment maintenance; stronger construction and greater stability—these are some of the advantages of the new B.F.Goodrich All-Purpose Pneumatic industrial tire.

The All-Purpose tread has hundreds of gripping edges that give positive traction in forward or reverse. Husky shoulders and a continuous center rib wear slowly and evenly, give the All-Purpose greater stability under heavy loads. And because it's pneumatic, the All-Purpose gives a quiet, cushioned ride that protects driver, equipment and floors. Maintenance costs are cut.

FREE TW Analysis can save you money

The new All-Purpose Pneumatic is just one in a complete line of money-saving B.F.Goodrich industrial tires for every materials handling job. Picking the right tire for your work is the job of the B.F.Goodrich Tire and Wheel Analysis man. His unbiased recommendations can save you up to 50% on tire costs, up to 20% on maintenance costs. This B.F.Goodrich service is FREE—just mail the coupon. A consulting service is available to manufacturers of materials handling equipment.

Specify B.F.Goodrich tires when ordering new equipment

B.F.Goodrich

B.F.Goodrich Tire Co.,
A Division of The B.F.Goodrich Co.
Department TW-651, Akron 18, Ohio

I would like further information on your FREE TW Analysis.

Name_____
Company_____
Street_____
City_____ Zone____ State____

For more details circle NED-269 H7 on enclosed inquiry slip

NOW low-cost protection against corrosion with Chemstor tanks

You get maximum protection against corrosion at lowest cost when you install Chemstor glassed-steel tanks.

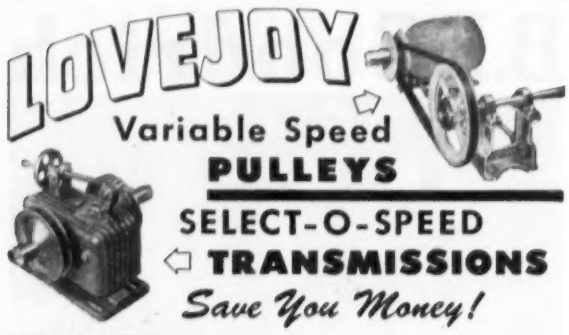
Chemstor is inexpensive—Costs less than a dollar a gallon in all but the smallest sizes and as little as 25¢ a gallon in the larger sizes. Sizes range from 750 to 35,000 gallons.

Chemstor protects product—The glass lining in a Pfaudler Chemstor tank cannot contaminate or discolor your product. This hard, smooth glass also lends itself to quick and thorough cleaning and sterilization. Even sticky products do not generally adhere.

For complete information on construction, sizes, and accessories, send for Bulletin 918.

THE PFAUDLER CO.
Rochester 3, N.Y.
Specialists in Corrosioneering

For more details circle **NED-270 H7** on enclosed inquiry slip



LOVEJOY Variable Speed PULLEYS

SELECT-O-SPEED TRANSMISSIONS

Save You Money!

HERE'S WHY:

- ECONOMICAL IN COST compared to other variable speed transmission equipment. Simple in design but rugged in construction to give you long dependable service.
- EASILY INSTALLED on new or old equipment. Just as easy to operate. Finger-tip adjustment gives the right speed instantly.
- MAINTENANCE IS NEGLIGIBLE. No complicated mechanisms to get out of order. All parts can be readily inspected. Belts can be quickly adjusted or replaced.

Variable Speed Pulleys fractional to 15 hp., ratios to 3 to 1.
Select-O-Speed Transmissions fractional to 5 hp., ratios to 10 to 1.

For your variable speed application, there is a type and size Lovejoy unit that will give you initial economy, dependable performance and long service life.

GET FULL DETAILS NOW. *Request Catalog.*

LOVEJOY FLEXIBLE COUPLING CO.
4803 W. LAKE STREET • CHICAGO 44, ILLINOIS
Mfrs. of Flexible Couplings, Variable Speed Pulleys and Transmissions, Motor Bases and Universal Joints.

For more details circle **NED-271 H7** on enclosed inquiry slip

Want a laminated plastic with excellent electrical characteristics over a wide range of humidities and temperatures?

Try Synthane Glass Epoxy

Terminal board punched from Synthane Grade G-10 Glass Epoxy

A continuous filament woven glass fabric grade, impregnated with epoxy resin. This grade is particularly noted for its excellent electrical values. It possesses low moisture absorption, low dissipation factor and maintains these excellent electrical characteristics over a wide range of humidities and temperatures. This grade possesses good dimensional stability and excellent mechanical properties and is recommended for use at temperatures up to 300 deg. F. and is often used for printed circuit applications.

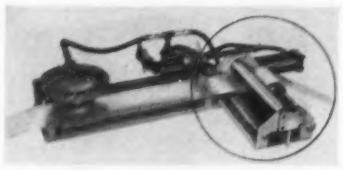
SYNTHANE CORPORATION
N.E. River Road, Oaks, Pa.

☐ Send me promptly information about Synthane G-10 laminated plastics
☐ I am interested in other Synthane Grades

NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For more details circle **NED-272 H7** on enclosed inquiry slip

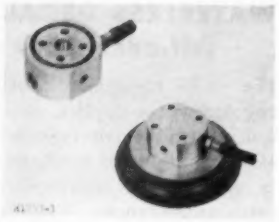
COILED STOCK LEVELER is nonpowered light duty unit



Coil curvature is removed from stock up to 12 x 0.090-in. or 18 x 0.060-in. by the Ses-Matic light duty leveler. Designed for use with the Ses-Matic air feed, it is nonpowered and intended for use with equipment which is powerful enough to pull the coiled stock through the straightening rolls. Leveler has three smooth-finished rolls mounted on roller bearings. Adjustable upper roll controls degree of stock flexing. Made by **Special Engineering Service, Inc.**, Dept. NED, 8161 Livernois Ave., Detroit 4, Mich.

For more details circle **NED-273 H7** on enclosed inquiry slip

VENTURI BLOCK used with vacuum cups for handling



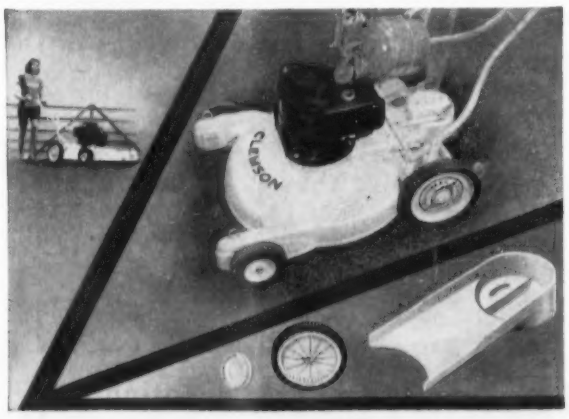
Designed without moving parts, this venturi block can supplant vacuum pumps in the lifting and moving of parts by vacuum. Units are mounted on pick-up arms or booms with Stilson vacuum cups and facilitate lifting or moving of sheet metals, glass, plastics, plywood and other sheet, molded or stamped materials. The venturi is made of aluminum alloy and operates quietly on 35 to 40 psi air pressure. Made by **Stilson Tool Corp.**, Dept. N, 30233 Groesbeck Highway, Roseville, Mich.

For more details circle **NED-274 H7** on enclosed inquiry slip

REFRIGERATED CENTRIFUGE for temperature down to −20° C

Cabinet construction with storage space, Formica working top, ball-bearing motor, vibration mounts and electric brake are among features of the Imperial 20-R, size 2 refrigerated centrifuge with pushbutton control panel. Safety switch prevents operation of centrifuge if cover is open. Hermetically-sealed refrigeration compressor uses F-12 refrigerant. Unit is capable of temperatures down to −20° C, depending on type of head and accessories used. Maximum speed is 6000 rpm, controlled by built-in auto transformer. Unit is mounted on casters for mobility. Made by **Chicago Surgical & Electrical Co.**, Dept. 10, 3070 W. Grand Ave., Chicago 22, Ill.

For more details circle **NED-275 H7** on enclosed inquiry slip



Drive and housing of KRALASTIC

The severe thrust action developed by self-propelled rotary mowers previously required metal gears and wheels. New Kralastic®, with its tremendous impact strength, absorbs this punishing impact and thrust. Extremely strong, tough yet light in weight, Kralastic can't rust, rot or corrode. This unique rubber resin is making more and more products better. How can it improve yours? Why not contact us today and find out?

United States Rubber
Naugatuck Chemical Division
Naugatuck, Connecticut

BRANCHES: Akron • Boston • Gastonia, N.C. • Chicago • Los Angeles • Memphis • New York • Philadelphia • **IN CANADA:** Naugatuck Chemicals, Elmira, Ontario • Rubber Chemicals • Synthetic Rubber • Plastics • Agricultural Chemicals • Reclaimed Rubber • Latices • Cable Address: Rubexport, N.Y.

For more details circle **NED-276 H7** on enclosed inquiry slip

No "Creeping Rust" with Penco's PHOSPHATE BASE

Because an extra step in the finishing cycle puts a phosphate coating on every product—Steel Shelving, Lockers, Cabinets—your Penco equipment is protected against the rust that can spread underneath enamel from scratches and rubs that expose metal. Write for Catalogs NE-57-1

penco "Perma-Built" STEEL LOCKERS | **penco STEEL SHELVING** | **penco STEEL CABINETS**

penco STEEL LOCKERS CABINETS · SHELVING

penco METAL PRODUCTS DIVISION
ALAN WOOD STEEL COMPANY
OAKS, PA.

For more details circle **NED-277 H7** on enclosed inquiry slip

DPS *has* **the technical know-how to "engineer" more speed and profit into your assembling operations.**

POWER SCREW-DRIVERS
An extensive, versatile line in both bench and pedestal type.

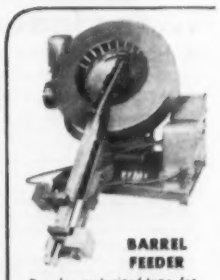
• The signal success of DPS trained engineers in adapting power equipment to the individual feeding and assembling needs of industrial plants everywhere is assurance that they can likewise solve your special problems. In our broad line of

SELECTIVE PARTS FEEDERS
POWER SCREWDRIVERS
SPECIAL ASSEMBLING MACHINES

equipment can be selected, and custom features incorporated, to fit your requirements. Plan now to use DPS modern assembling methods. Tell us your set-up. Write for catalog and further details.

BOWL FEEDER
Electrical vibratory type to feed parts that cannot be tumbled.

BARREL FEEDER
with stationary ring cover for heavy-duty production.



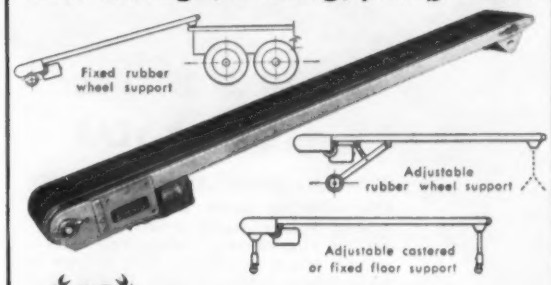
BARREL FEEDER
Popular motorized type, for parts requiring critical selection.

DETROIT POWER SCREWDRIVER CO.
2819 W. FORT STREET • DETROIT 16, MICHIGAN

For more details circle **NED-278 H7** on enclosed inquiry slip

ASK Standard

how the versatile HANDIBELT BOOM cuts storage, loading, piling costs



50 years of conveyor experience

With the portable, powered HANDIBELT BOOM, you can move bags, cartons, boxes horizontally or at a variety of incline or decline angles . . . quickly, safely, economically. Riding on rubber tired wheels, this lightweight conveyor can be easily moved . . . fits in crowded aisles, freight elevators. And it's adaptable to a wide range of portable and fixed position supports.

FOR DETAILS, write Dept. K-8
STANDARD CONVEYOR COMPANY
North St. Paul 9, Minn.
Sales and service in principal cities.

Standard GRAVITY & POWER CONVEYORS

For more details circle NED-279 H7 on enclosed inquiry slip

Speed silver brazing

Lucas-Milhaupt

NO TANGLE NOTCH COIL RINGS

1. Quickly snapped off coil and placed on part.
2. No tangling or distortion
3. Minimum amount of precious alloy for positive bond.

RING DIAMETERS from ¼" to 12" — + .001.

WIRE SIZES .020 to .093.

FREE 16 page booklet gives you all the facts on better brazing

LUCAS MILHAUPT Engineering COMPANY
5070 So. Lake Drive, Cudahy, Wis.

For more details circle NED-280 H7 on enclosed inquiry slip

SMALL HYDRAULIC CYLINDERS in ½, ¾, 1, 1¼ and 1½-in. bores

Line of 3000-psi non-cushioned hydraulic cylinders includes ½, ¾, 1, 1¼ and 1½-in. bore sizes. All except the ½-in. size are available with standard or 2:1 rod. Small size allows use of cylinders where space must be conserved. Service pressure peaks up to 10,000 psi can be tolerated. Cylinders are available in stroke lengths up to 36 in. Made by **Oil-Dyne, Inc.**, 2115X W. Marquette Rd., Chicago 36, Ill.

For more details circle NED-282 H7 on enclosed inquiry slip

CARGO RELEASE HOOKS capacities up to 25,000 lb

Originally designed for use by helicopters in transporting suspended cargoes, line of release hooks is applicable in general cargo and materials handling operations. Housing is high strength cast aluminum with two mounting shackles for attachment to crane or other carrying device. Load beams and latches are high strength steel. Units can be released electrically or mechanically by the operator, mechanically by ground personnel and automatically by touchdown of cargo. They are electrically triggered by a rotary solenoid. Load ratings are 2500, 4500, 6000, 15,000 and 25,000 lb. Made by **Eastern Rotorcraft Corp.**, Dept. NED, 400 Swamp Rd., Doylestown, Pa.

For more details circle NED-283 H7 on enclosed inquiry slip

HYDRAULIC LIFT TABLE lifts 500-lb loads 47-in. high

Die, tool or parts loads in excess of 500 lb are lifted from 30 to 47 in. by model 250 Easy-Up hydraulic lift table. Hydraulic action is through hand and foot lever. Table revolves completely for easy positioning and rolls smoothly on rubber swivel casters. The 22-in. square top is thick cold rolled plate. Price is $99.50. Made by **John Charles Co.**, Dept. NED, 1513 Plaza del Amo, Torrance, Calif.

For more details circle NED-284 H7 on enclosed inquiry slip

PROVIDE BETTER...MORE EFFICIENT FILTRATION OF COMPRESSED AIR

- More efficient water removal
- Operates over wider pressure range
- Operates over wider temperature range
- Withstands rougher usage
- Eliminates manual draining
- Choice of three filter elements

WRITE FOR NEW NO. 800 CATALOG

C. A. NORGREN CO.
3405 SOUTH ELATI STREET • ENGLEWOOD, COLORADO

For more details circle NED-285 H7 on enclosed inquiry slip

LOOK LOOK LOOK

RAYMOND

ELECTRIC PALLET TRUCK
Complete with Batteries & Charger
ONLY $1880*
F. O. B. Greene, N.Y.

NEVER BEFORE . . . a 4,000 lb. capacity electric pallet truck with batteries and charger at a price this low! And wait 'til you see it perform. Not 2 but 3 speeds forward and reverse. Up to 24 volts (from four 6-volt batteries) for flattening out steep ramps. More maneuverable because of short length and wide steering arc. ⅔ the weight of conventional walkies, convenient handle-located controls, plus exclusive safety control for operator protection.

*Standard production model with 48" forks.

GET THE COMPLETE STORY!
The RAYMOND CORPORATION
4136 Madison St., Greene, N.Y.

☐ Rush latest RAYMOND Electric Pallet Truck Bulletin.
☐ Have RAYMOND representative call.

NAME TITLE
COMPANY
STREET
CITY STATE

For more details circle NED-286 H7 on enclosed inquiry slip

ECONOMICAL! FAST! MOST VERSATILE!

THE NEW STEWART-WARNER "ELECTRONIC" INDUSTRIAL BALANCER

Wide Range Use—Handle single-piece, short-run and long-run production, as well as maintenance of your own machines.

Fast set-up! Adjusted to handle any job in less than two minutes.

No special tools required! New design permits change-over from one job to another without special fixtures.

Easy to operate! Semi-skilled workers can learn in one day.

Precision sensitivity! Balances both kinetically and dynamically with maximum sensitivity.

Lowest Cost! Cuts cost of balancing per piece so low that even smallest shops can now afford their own precision balancer.

Established Maximum and Minimum Ranges:
Heavy Duty Model 708
Weight—1 lb. to 5000
Diameter—1" to 68"
Length—7" to 83"
Sensitivity—0.04 inch-oz.
Portable and Standard Duty Models also available.

Write for FREE illustrated brochure on industrial balancing

STEWART-WARNER CORPORATION
Dept. SS-87, 1850 Diversey Parkway, Chicago 14, Illinois
Please mail me all the facts about Stewart-Warner Industrial Balancers.

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Company
Address
City Zone State

STEWART SW WARNER STEWART-WARNER

For more details circle NED-281 H7 on enclosed inquiry slip

save valuable floor space...
reduce expensive man hours...
cut maintenance cost with the

COLSON
HYDRAULIC PALLET TRUCKS

The Colson Leverlifts are perfect for crowded floor areas and rail cars where the use of power equipment is prevented. They are an ideal supplement for short hauls and "spotting" loads. Choose from a complete line of single or double faced pallets or skid lift trucks.

SAVE MONEY! Easy opening "jack knife" head construction allows quick, easy maintenance. Sealed ball bearings in all wheels. Lubricated for life.

SAVE WORK! Every stroke a power stroke.— Toggle Booster Wheels avoid "skating" empty pallets. 10" wheels move easier—steer better.

SAVE SPACE! Only 16" longer than fork length when raised (18½" lowered) 4000 and 6000 lb. capacities permit higher pallet loading.

Use Colson's Material Handling Consultants for every handling problem

The Colson Corporation
General Offices, Elyria, Ohio
Factories in Elyria, Boston, Toronto

▲ For more details circle NED-287 H7 on enclosed inquiry slip ▲

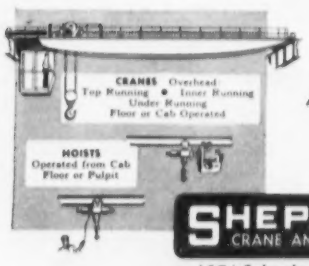
SHEPARD NILES

INDUSTRIAL CRANES in medium capacities

TALK TO SHEPARD Niles first when you're considering a medium capacity crane. Because Shepard offers a wide range of standardized cranes for your selection . . . including welded plate girders for longer spans; Shepard's widely-praised welded I beam design for shorter spans; geared or direct drive trucks; Shepard's distinctive crane trolley (not hoist type); cab or floor operated; manual or magnetic control.

These Shepard Niles Cranes can be rated and applied for light, medium or heavy service. All component parts are designed and built by us expressly for crane service.

Write for Bulletin illustrating Shepard Niles medium capacity cranes . . . ask to have a representative call at your convenience.

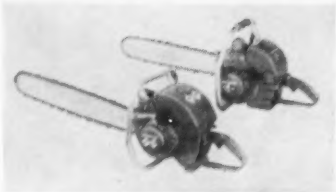


America's Most Complete Line of Cranes and Hoists Since 1903

SHEPARD NILES
CRANE AND HOIST CORPORATION
1874 Schuyler Ave., Montour Falls, N.Y.

▲ For more details circle NED-288 H7 on enclosed inquiry slip ▲

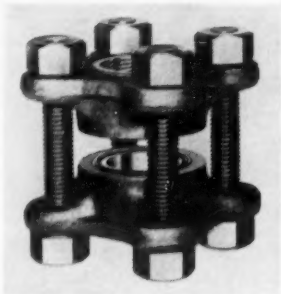
CHAIN SAWS
direct drive and gear drive models



Six - horsepower gasoline engines power the model 6-22 and EZ-6 chain saws. The EZ-6 is a 19-lb direct drive saw which will cut through 8-in. oak in 4 seconds and bring down trees up to 5 ft in diameter. Model 6-22 weighs 22 lb and with its gear drive has sufficient power to down 7-ft diameter trees. Trees of 20 in. are cut through in 18 seconds. This model has attachments for quick switching from a straight blade chain saw to a brush cutter, plunge-cut bow saw or clearing tool. Diaphragm carburetors in both models permit cutting in any position. Made by **Homelite,** 622 Riverdale Ave., Port Chester, N. Y.

▲ For more details circle NED-289 H7 on enclosed inquiry slip ▲

O-RING FLANGE UNION
screwed or socket-welding ends



The 6000-psi addition to a line of O-ring flange unions is available with screwed or socket-welding ends in two and four-bolt types. Along with a 3000-psi model, it is suited for high pressure hydraulically operated equipment, refrigeration, and process liquid and gas lines. O-rings are available in a variety of materials to resist many industrial fluids. Made by **H. K. Porter Co.,** W-S Fittings Div., Dept. N, Box 95, Roselle, N. J.

▲ For more details circle NED-290 H7 on enclosed inquiry slip ▲

AIR-POWERED RIVETER
facilitates fabricating operations

Up to ⅜-in. tubular rivets as well as 3/16-in. solid brass, copper and iron rivets are clinched with this Giant Super air-powered riveter. All types of maintenance, production, fabrication and assembling operations, as well as punching, slotting and notching using suitable dies, are performed by this machine. Features include handy foot control, instant-change tool holder, adjustable ram stroke and quick release air valve. Bench and floor models are made by **Barrett Equipment Co.,** 2101 Cass Ave., St. Louis 6, Mo.

▲ For more details circle NED-291 H7 on enclosed inquiry slip ▲

The Versatile Pangborn Blast Cleaning Cabinet

This Pangborn Cabinet is perfect for small or intermittent jobs! Use it for production or maintenance . . . use it with any type of abrasive, at almost any air pressure. You'll find that it cleans quickly and thoroughly, that it is easy, economical and safe to operate. Shipped fully assembled . . . from $365.00 up. For full details, write to PANGBORN CORP., 2400 Pangborn Blvd., Hagerstown, Maryland.

Mfgrs. of Blast Cleaning & Dust Control Equipment

Pangborn
BLAST CLEANS CHEAPER

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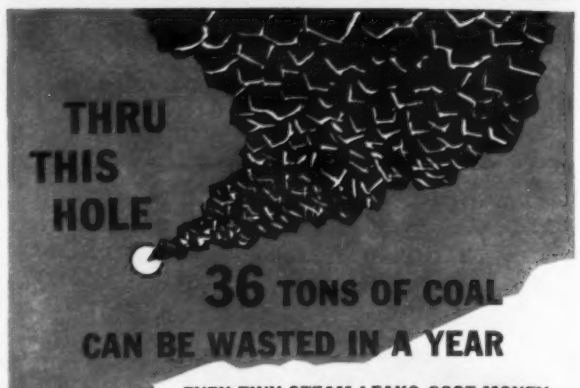
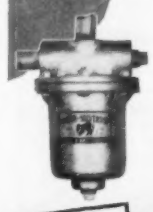


EVEN TINY STEAM LEAKS COST MONEY

Old obsolete steam traps—traps with scored valves—badly worn parts—improper alignment of valves and seats—permit steam to escape. This results in tremendous losses of fuel. Check your steam traps. If they are wasting fuel, change to Super-Silvertops, the engineered trap. Order from your jobber or Anderson agent today.



FREE TRAP SELECTOR BOOKLET

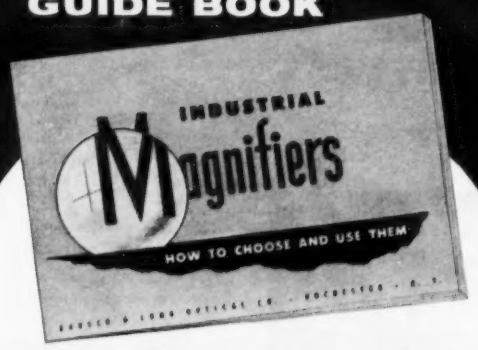
Tells how to select and install traps to get maximum production. For free copy, write for "Solving Steam Trap Problems," The V. D. Anderson Company, division of International Basic Economy Corporation, 1958 West 96th Street, Cleveland 2, Ohio.

The Engineered Steam Trap

ANDERSON
SUPER-SILVERTOP STEAM TRAPS

▲ For more details circle NED-293 H7 on enclosed inquiry slip ▲

FREE
24-Page Industrial Magnifier GUIDE BOOK



Precision industrial magnifiers can simplify and speed manufacturing and inspection operations, saving considerable time and money. Send for your copy of *Manual I-67* to guide you in choosing the right magnifier for the job. Bausch & Lomb Optical Co., 51620 Bausch St., Rochester 2, N. Y.

BAUSCH & LOMB

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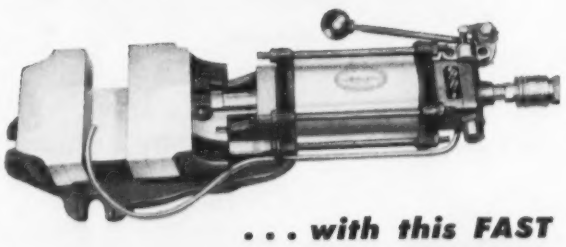
YOU CAN CUT COSTS ON LIGHT ASSEMBLY OPERATIONS



. . . with this FAST

Bellows AIR VISE

Built-in electrically-controlled valve. Only one air connection. Adjustable speed controls. Clamping pressures controllable from 5 to 500 lbs. 4" wide soft steel false jaws. 2¼" jaw opening. Easily synchronized with other Bellows units, or with drill presses, riveters, punch or arbor presses.

Write for Bulletin 761 RB. Address Dept. NED 857

The Bellows Co.
AKRON 9, OHIO

890-B

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A GUARANTEED HEAT SOURCE, *Easily Installed*

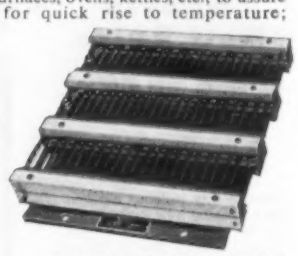
"FOLDED-and-FORMED" Heating Elements

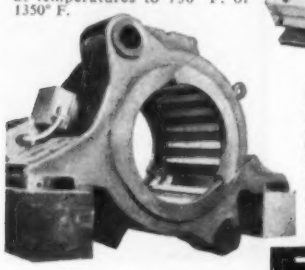
are quickly, easily installed in furnaces, ovens, kettles, etc., to assure a heat source unequalled for quick rise to temperature; long-life efficiency; low-cost maintenance and repairs.

STANDARD RACKS

Temperatures from 750° to 1700° F.

Sizes 12" x 12". Installed vertically or horizontally, side-by-side, end-to-end, or in banks, to meet K. W. requirements. Five-year guarantee, at temperatures to 750° F. or 1350° F.





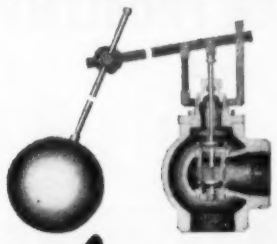
View of Extrusion Press Container Housing—container removed—temperature 1200° F. Heaters keep container and die at aluminum extrusion temperatures.

CUSTOM BUILT RACKS

Available in wide range of sizes and combinations, to fit any flat or curved area, to provide maximum K. W. at temperatures to 1850° F. Hundreds of different applications are demonstrating the outstanding efficiency and economy of "F-and-F" Heating Elements. You, too, can use them *profitably!*

TREN INC.
Electrically Heated Industrial Equipment
242 LEVERINGTON AVE., PHILA. 27, PA.
In Canada Supreme Power Supplies Limited Toronto 14

▲ For more details circle NED-296 H7 on enclosed inquiry slip ▲



low cost liquid level control

Klipfel FLOAT VALVES

On the majority of liquid level control applications, there's no need for fancy electric-electronic set-ups. A simple float valve, correctly engineered for the particular service, does the job just as well, at lowest cost.

Klipfel Float Valves assure dependable, trouble-free service with a minimum of maintenance.

Write today for your copy of Klipfel Bulletin 254. It gives helpful type and size selection data and complete description of the wide range of Klipfel types, styles and sizes for every service.

Klipfel VALVES, INC.
1083 LINCOLN AVE.
HAMILTON, OHIO
Export Office—1010 Schaff Bldg., Philadelphia 2, Pa.

▲ For more details circle NED-297 H7 on enclosed inquiry slip ▲

dependable

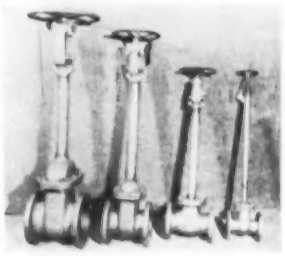
ANCHOR VERTICAL SPEED REDUCERS

Designed specifically for conveyor applications requiring a vertical output shaft (up or down), and extended bearing housing for high overhung load, ANCHOR Reducers feature readily accessible helical gears for ratio changes. Available from stock in six sizes, ratios up to 1800:1. Write for Bulletin 57-1.

ANCHOR STEEL & CONVEYOR CO.
6906 KINGSLEY AVE. DEARBORN, MICHIGAN

▲ For more details circle NED-298 H7 on enclosed inquiry slip ▲

GATE & GLOBE VALVES handle low temperature liquids



Line of stainless steel gate and globe valves is suited for operation at −300° F and 150 to 600 psi, such as encountered in handling liquid oxygen and other low temperature liquids. Extended bonnets permit use of heavy insulation between operating mechanism and the pipe line, allowing free movement of the valve. They have Teflon chevron packing and are offered in ½ to 12-in. sizes. Made by **Cooper Alloy Corp.**, Dept. NED, Bloy St. & Ramsey Ave., Hillside 5, N. J.

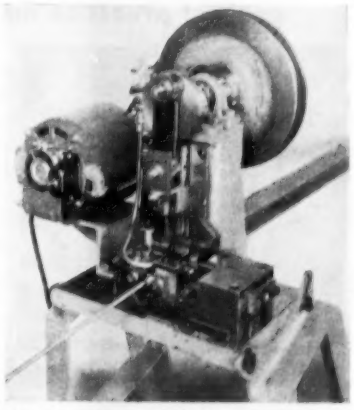
▲ For more details circle NED-299 H7 on enclosed inquiry slip ▲

RECTANGULAR PUSHBUTTONS can be marked for identification

Momentary-contact rectangular pushbuttons for individual and multiple applications have integral identification area and colored buttons. Button area is black, red, white or green, with black frame. No. 1025 has ¾ x ½-in. "press" area and is rated ½-amp on 230-v ac with normally open or normally closed contacts. Model 1126 has 1 3/16 x ¾-in. area, is rated 2 amp at 230-v ac, and is furnished with two open, two closed or one open and one closed contacts. Made by **H. R. Kirkland Co.**, 8 King St., Morristown, N. J.

▲ For more details circle NED-300 H7 on enclosed inquiry slip ▲

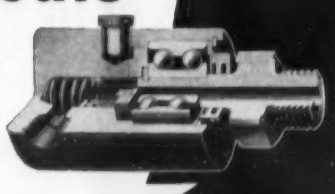
PRODUCTION TUBE CUTTER handles ⅛ to ½-in. diameters



Steel, copper, aluminum and other tubing is precision cut at production speeds by this tube cutter. It is readily set up to handle tubing ranging from 0.028 - in. wall thickness in ⅛-in. size to 0.045-in. wall thicknesses in ½-in. tubing. Any predetermined length can be selected. For 2 to 30-in. lengths, bed of machine is tilted back to allow parts to fall into pans. On longer tubing, machine is set level with table to prevent bending of tubing. Speed is 245 rpm. Made by **Novi Tool & Machine Co.**, 25810 Novi Rd., Novi, Mich.

▲ For more details circle NED-301 H7 on enclosed inquiry slip ▲

FAWICK rotorseals have 1000 uses



ROTORSEALS are by far the world's most efficient means of transmitting air, liquids or gases under pressure or vacuum into rotating shafts.

- Thousands of applications
- One to three passages
- Ready-to-use
- Life-sealed lubrication
- Speeds to 5000 rpm
- Pressures to 2000 psi
- Through-hole sizes from ¾" to 1½"

Write for Bulletin ML-6

FAWICK AIRFLEX DIVISION
FAWICK CORPORATION
9919 Clinton Rd., Cleveland 11, Ohio
In Canada, Fawick Canada, LTD., Toronto

FAWICK Airflex
INDUSTRIAL CLUTCHES AND BRAKES

▲ For more details circle NED-302 H7 on enclosed inquiry slip ▲

For faster, lower cost assembly...

You'll get big savings on assembly operations with Stackbin Assembly Bins. Work station layouts are more efficient. Parts are kept close to worker's hands . . . reaching and fumbling is eliminated. Shallow angle lip is just right for finger tip control. Operators can select with both hands. Sloping bottom feeds parts continually toward the front. With adjustable hoppers, there are always plenty of parts when and where they're needed.

Stacking feature permits rigid setups, allows flexibility when layout is changed.

Stackbin Assembly Bins feature all-welded construction with smooth, folded edges. 6 sizes with straight or tapered sides. Also available with rear-loading feature.

WRITE TODAY for full information on the Stackbin System

Stackbin Corporation, 1081 Main Street, Pawtucket, R. I.
Mfgd. and sold in Canada exclusively by Wickware-Stackbin, Ltd., Ottawa

STACKBIN SYSTEM
"Stacked and Still Accessible"

▲ For more details circle NED-303 H7 on enclosed inquiry slip ▲

Why settle for less?

HERE'S THE ONE ADHESIVE WITH—

—The Strength of Ten Men

that answers any industrial bonding need—resists a pull of up to 1,500 pounds per square inch.

—The Bond-Ability

that makes it the handiest adhesive in your shop—no matter what materials you bond.

—The Easy Use

that makes child's play of even the toughest bonding jobs—saves you time and effort.

AVAILABLE from industrial jobbers or mill supply houses everywhere or write: Goodyear, Chemical Division, Coatings Dept., Akron 16, Ohio, for full information.

Pliobond BY GOODYEAR

"BONDS ANYTHING TO ANYTHING"

Pliobond—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

▲ For more details circle NED-304 H7 on enclosed inquiry slip ▲

For more details circle NED-305 H7 on enclosed inquiry slip

NO SLIPS . . .
NO FALLS . . .
NO INJURIES

With Alcoa Abrasive Tread Plate

Hard, sharp particles of fused aluminum oxide give a grinding wheel its *bite* and Alcoa® Abrasive Tread Plate its *grip*.

This abrasive surface is rolled into tough, aluminum alloy plate. It can't come off. Its slip-proof qualities are more than surface deep.

It stays slip-proof when wet, oily, greasy.

Because it's aluminum, it is durable, corrosion resistant and never needs painting.

Use this safer, longer lasting tread plate wherever accidents might happen. Your safety committee knows all the places.

Just remember that 20,000 workers are killed and thousands injured in slipping accidents each year. If it prevents just one such accident in your plant, Alcoa Abrasive Tread Plate would be the best insurance you can buy.

Check the coupon for a four-inch sample and complete details. Aluminum Company of America, 1668-H Alcoa Building, Pittsburgh 19, Pennsylvania.

Your Guide to the Best in Aluminum Value

ALCOA ALUMINUM ABRASIVE TREAD PLATE

THE ALCOA HOUR TELEVISION'S FINEST LIVE DRAMA ALTERNATE SUNDAY EVENINGS

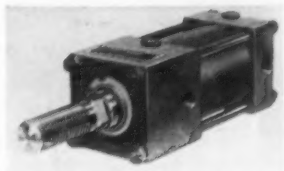
Aluminum Company of America
1668-H Alcoa Building
Pittsburgh 19, Pa.

Please send literature and four-inch sample of abrasive tread plate.

Name and title _____
Company _____
Use being considered _____
Address _____
City and State _____

For more details circle NED-306 H7 on enclosed inquiry slip

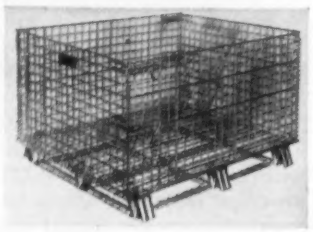
AIR & HYDRAULIC CYLINDERS in bore sizes 1.5 to 8 in.



Line of air and hydraulic cylinders includes bore sizes from 1.5 to 8 in. with rod diameters ranging from 0.875 to 3 in. Cylinders are designed for applications in automated equipment, or they can be used equally well in single operations. They can be serviced without special tools or extensive training. Features include rod wipers to seal against foreign materials, O-ring seals and bronze piston with V-cup packing seal. Cushions of 1 in. minimum on each end of the stroke are standard. Foot, clevis, trunnion, and flange mountings are offered. Made by **Wright & Co.,** 1289 N. Belsay Rd., Flint R6, Mich.

For more details circle NED-307 H7 on enclosed inquiry slip

PARTS HANDLING CONTAINERS made in various sizes, capacities



Permanently attached safety locks on Wire-Tainer parts handling, shipping and storing containers permit knock-down return after emptying. They are made in standard 32 x 40, 36 x 46, 40 x 48 and 48 x 48-in. sizes, all 24 in. high. Capacities are 1000, 2000 and 4000 lb. Special sizes can be ordered. Illustrated 40 x 48 x 24-in. size has strip base and 4000-lb capacity. Made by **Springport Steel Products Co.,** 120 Willow St., Springport, Mich.

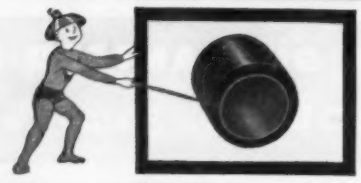
For more details circle NED-308 H7 on enclosed inquiry slip

PLASTIC STORAGE BOXES protect precision machined parts

In-process precision machined parts, instruments or assemblies can be safely transported or stored in the Modu box. Lightweight box has adjustable egg crate type dividers which make compartments as small as 1 sq in. Dividers can be positioned to divide the box into halves, thirds, etc., since they fit into ribbed indentation in the inside wall of the box and are self-supporting. Rolled edge around box allows sure, easy gripping. Made by **Hollywood Plastic Arts,** Modu Box Dept., 515 E. Ninth St., Los Angeles 15, Calif.

For more details circle NED-309 H7 on enclosed inquiry slip

For more details circle NED-310 H7 on enclosed inquiry slip



Mr. Hi Frequency

Boosts Bolt Sales 300%

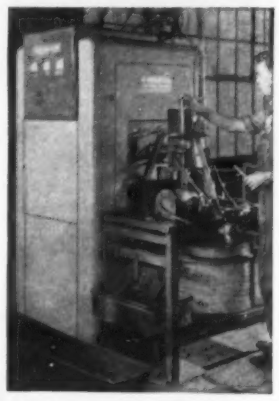
for JAMBOR TOOL AND STAMPING COMPANY

Jambor was making top-grade, long wearing king bolts but . . . the bolts were "file soft."

To remedy the situation, Jambor switched to higher carbon steel and surface-hardened the bolts with Allis-Chalmers electronic induction heaters. Results were amazing. Sales went up 300 percent. Material costs dropped 10 percent.

It could happen to you. If you harden, anneal, solder, braze or melt, chances are Allis-Chalmers induction heaters can do the job better, faster, more economically. For complete information, see your A-C representative or write Allis-Chalmers, Industrial Equipment Division, Milwaukee 1, Wisconsin.

White line indicates hardened steel. Black wrapper was used in photo to emphasize .060 case depth.



Allis-Chalmers has also supplied a number of work coils and quench blocks for a variety of jobs.

A-5423 ALLIS-CHALMERS

For more details circle NED-311 H7 on enclosed inquiry slip

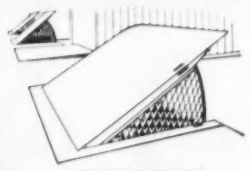
LOADING DOCK PROBLEMS?

3 easy ways to solve them — and most economically, too!

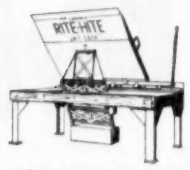
RITE-HITE mechanical loading ramps

10-ton capacity

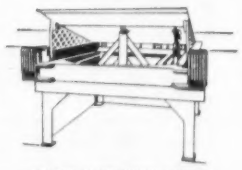
Practically no maintenance! Rite-Hite *precision counterbalanced* design eliminates troublesome cylinders, pumps, motors, starters, piping, valves, wiring, gears, cables. Rite-Hites are not affected by dirt, debris, extreme heat or cold. Easy to install—furnished complete, no "extras" to buy. All-welded heavy steel construction. You can be sure, when it's a Rite-Hite, it's right. Get full details—write Dept. B-87.



RECESSED RAMPS
Two standard, 60" x 60" and 72" x 72". Two flush-type, 72" x 72" and 96" x 72".



SELF-CONTAINED RAMP
For non-permanent installations. 72" x 72".



TRUCK-ACTUATED RAMPS
Two models, recessed and self contained, 96" x 72".

RITE-HITE DIVISION LOOMIS MACHINE COMPANY
133 EAST FOURTH STREET, CLARE, MICHIGAN

For more details circle NED-312 H7 on enclosed inquiry slip

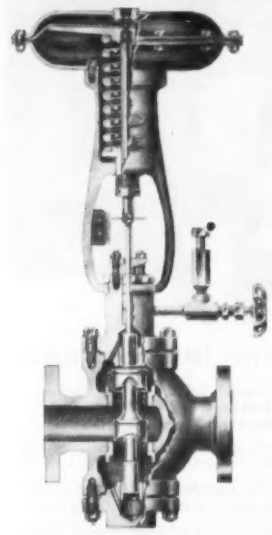
FULL CONE—HOLLOW CONE—FLAT SPRAY

Spraco has the most complete line of nozzles available anywhere — **IN STOCK.** Capacities range from ⅛ pint/min. to 4000 gal./min. Bronze, cast iron, and stainless steel. Write for our nozzle catalog.

SPRAY ENGINEERING CO., *106 Central St., Somerville 45, Mass.*

For more details circle NED-313 H7 on enclosed inquiry slip

New Savings with Masoneilan Control Valves



Famous for quality, these valves combine three essential factors to bring new savings to process control.

- Accurate Performance—wide flow range, powerful motor, and minimum friction.
- Stamina — over-all rugged construction, reliability of parts, extra strength for most severe applications.
- Economy — quick and easy servicing, disassembly, plus interchangeability of parts and built-in resistance to corrosion and erosion.

Masoneilan Valve sizes range from ¾" to 16", with wide selection of bodies, connections and trim. Types to handle all usual control valve applications.

SEND FOR CATALOG Unusually complete technical digest on control valves for easy and cost-saving selection of equipment.

MASON-NEILAN
Division of Worthington Corporation
69 Nahatan Street, Norwood, Massachusetts

For more details circle NED-314 H7 on enclosed inquiry slip

For lower snagging costs...

ATLANTIC *"Job-Mated"* GRINDING WHEELS

Time and again snagging costs have been reduced by the following ATLANTIC ABRASIVE formula: (1) a thorough analysis of specific snagging operations; (2) "mating" the grinding wheel characteristics to the job requirements.

RESULTS. Because ATLANTIC Resinoid-Bonded GRINDING WHEELS are "job-mated," they have a smooth, floating action that requires less pressure, thereby reducing operator fatigue, and they cut cleaner, faster and run cooler on job after job . . . reducing costs to a minimum. Prove it for yourself. Call your nearby ATLANTIC representative or write direct. Atlantic Abrasive Corp., 504 Pearl St., South Braintree, Mass.

ATLANTIC ABRASIVE CORP.
South Braintree 85, Massachusetts

For more details circle NED-315 H7 on enclosed inquiry slip

SQUARE D CONTROL for SMALL SPOT WELDERS

Class 8992—Type BBG-1 NEMA 1A Weld Timer and size 1W Welder Contactor in one enclosure.

Class 8991—Type TBS-6 NEMA 1A *Safront* Weld Timer.

- Consistent performance and ease of servicing make the Type BBG-1 combination or individual Type TBS-6 timer and suitable contactor the most efficient control for foot or motor-operated spot welders, 30 KVA and smaller.

Write for Small Spot Welder Control Bulletins, Square D Company, 4041 N. Richards St., Milwaukee 12.

SQUARE D COMPANY

For more details circle NED-316 H7 on enclosed inquiry slip

SWIVEL TRUCK CASTER has double ball race

Upper coined work-hardened ball race of the 52-A series pressed steel swivel truck caster carries the load and absorbs side thrust. The lower race balances the load and absorbs thrust. Steel sleeve over the axle strengthens the caster, provides a large bearing surface and prevents axle wear. Wheel diameters of 2½, 3, 4, 5 and 6 in. have capacities from 85 to 600 lb. Pressure lubrication is standard on 4-in. and larger wheels. Semisteel, soft and hard rubber in various vulcanized-on compounds and Bondcelon plastic wheels are offered. Made by **Bond Foundry & Machine Co.**, 306 Penn St., Manheim, Pa.

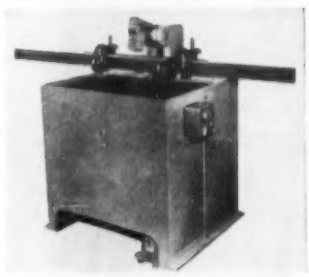
For more details circle NED-317 H7 on enclosed inquiry slip

HIGH SPEED DRILLS have ⅛ to ¾-in. taper shanks

Series of high speed taper length drills featuring the Fastwist flute construction are recommended for drilling aluminum, magnesium, copper, die cast metals, some plastic materials, slate and marble. Drills are offered in taper shank sizes ⅛ to ¾ in.; straight shank, taper length, wire gage sizes 1 to 60; and straight shank, taper length, letter sizes A to Z. Made by **Whitman & Barnes**, 40200 Plymouth Rd., Plymouth, Mich.

For more details circle NED-318 H7 on enclosed inquiry slip

AIR & HYDRAULIC PRESSES have multiple adjustable heads



Series of desk type horizontal production presses for straightening, assembling and cold riveting are easily loaded and unloaded by hand or automatically particularly from overhead. The air or hydraulic 10 and 20-ton units are suited for automated production lines. Parts to be straightened are held in manual or air-operated centers or rollers while constant-reading underside indicators show amount of distortion and deflection necessary. Pressure is applied through a single head on a rolling carriage or through multiple heads. Shop air line of 80 psi or low pressure hydraulic pump units supply power. Made by **General Mfg. Co.**, 6432 Farnsworth Ave., Detroit 11, Mich.

For more details circle NED-319 H7 on enclosed inquiry slip

BY POPULAR DEMAND!

..... A NEW JUMBO SIZE SIPCO DUNKING STATION

Specially designed for use in plants where SIPCO DUNKING STATIONS receive more than average use. Goes shift after shift without attention, greatly reducing cleanup time. Heavy duty cast aluminum canister. Guaranteed 3 years against breakage. Interchangeable with standard size canisters on any model SIPCO DUNKING STATION.

PRESENT SIPCO USERS! Order NEW JUMBO size canisters separately. They are interchangeable with your present standard size units.

UNIT No. 1J—Heavy duty cast aluminum JUMBO canister, attractive eye-catching metal sign, upright and heavy weighted base. 42" high, wt. 26 lbs.

UNIT No. 2J—Same as above except without upright and base. For mounting on walls, posts, columns or machines. Wt. 6 lbs.

UNIT No. 3J—(not illustrated)—Canister alone with mounting bracket.

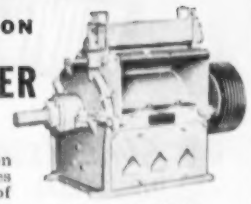
WRITE FOR ILLUSTRATED FOLDERS

STANDARD INDUSTRIAL PRODUCTS CO.
DEPT. D • 920 N. GARFIELD AVE. • PEORIA, ILLINOIS

For more details circle NED-320 H7 on enclosed inquiry slip

FOR GRANULATING **UNIFORM PARTICLES** IN LARGE VOLUMES!

SPROUT-WALDRON *ROTARY* KNIFE CUTTER



Write for Bulletins 141 & 101

The Sprout-Waldron Knife Cutter produces granular particles of more uniform size than is obtainable through most other types of machines . . . at great capacities. Unique arrangement of knives and screens assures clean-cut uniform particles. Customary frictional heat is reduced. Ideal for pre-cutting rags or leather . . . flocking continuous strips of alpha pulp . . . granulating cork or thermoplastic stock . . . and for hundreds of other uses.

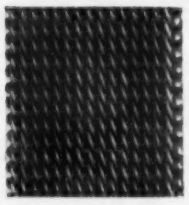
For all other problems, too, involving single or combined phases of size reduction, Sprout-Waldron has your one best answer. Complete lines of crushers, hammer, roller, and attrition mills, and equipment for feeding and removing materials from these units are available. And our long years of experience in planning and designing size reduction installations are at your service. Write for details.

SPROUT-WALDRON
Manufacturing Engineers Since 1866
8 LOGAN STREET • MUNCY, PA.
EQUIPMENT FOR SIZE REDUCTION—MIXING & BLENDING — BULK MATERIALS HANDLING — PELLETING & CUBING — PRODUCT CLASSIFICATION

IN/501

For more details circle NED-321 H7 on enclosed inquiry slip

GRIPPER SLINGS for faster, safer handling



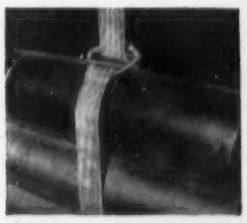
Made of WOVEN WIRE

Thousands of sturdy wire strands woven in a smooth transverse-loop construction combine the strength of steel with exceptional load stability of an extra broad bearing surface. Gripper Slings give you maximum capacity and flexibility with minimum load damage. No whipping, kinking or tangling—slings stay where they're put for easier loading, safer maneuvering, compact storage. No sharp loose strands to snag load or operator.

SPECIAL COVERINGS

. . . of Neoprene and other plastic materials are available to assure scratch-free handling of the most highly finished materials — even milled and machined parts.

Easy to use in BASKET or CHOKE HITCH



Whether Gripper Slings are used in Basket hitch for maximum capacity or Choke for greatest grip, only one man is needed to fasten the load and operate the hoist.

Gripper Slings, PRETESTED to meet loading specifications, are available in standard lengths and widths with capacities up to 100,000 lbs.—special sizes on request. See your materials handling or mill supply distributor for a demonstration. OR, write direct for FREE catalog and name of nearest distributor.

The Cambridge Wire Cloth Co.

WIRE CLOTH | METAL CONVEYOR BELTS | SPECIAL METAL FABRICATIONS

DEPARTMENT AG, CAMBRIDGE 8, MARYLAND

OFFICES IN PRINCIPAL INDUSTRIAL CITIES

DEALERS: ask about open territory data

For more details circle NED-322 H7 on enclosed inquiry slip

▲ For more details circle NED-323 H7 on enclosed inquiry slip ▲

Stacking Problem? call EMI

anything can be

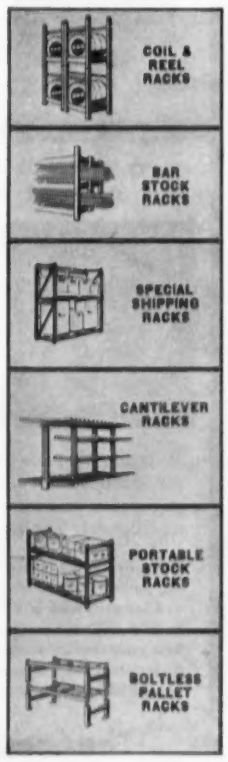
"well stacked"

or shipped on EMI racks

Big or little, strong or fragile, *anything* stacks or ships better on EMI quality racks. They protect stock, cut handling costs and speed inventory.

EMI RACKS are made of strong, tubular steel and are adjustable to fit any space or unit load. Special racks designed to your specifications with field engineering service on any installation.

Write for our illustrated catalog before you plan additional storage space or the purchase of stacking or shipping equipment.



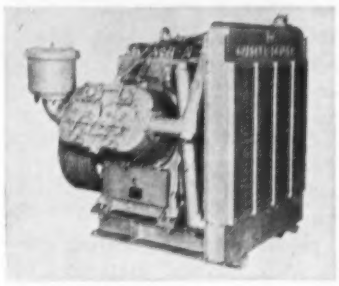
Well Stacked Racks for Industry

EQUIPMENT MFG. INC.

21566 HOOVER ROAD DETROIT 5, MICHIGAN

▲ For more details circle NED-324 H7 on enclosed inquiry slip ▲

AIR COMPRESSOR displacement is 1150 cfm



Model WBN air compressor is a 200-hp, two-stage packaged unit with displacement of 1150 cfm. It fits in a 72 x 68-in. area and requires no special base. Once bolted down and connected to power source, it is ready to operate. It is available with tube type intercooler or with self-contained radiator intercooler. Made by **Gardner-Denver Co.**, 1350 Front St., Quincy, Ill.

▲ For more details circle NED-325 H7 on enclosed inquiry slip ▲

HOSE CLAMPS grip into hose without cutting

Equal pressure is exerted on the entire circumference of hose held by Deluxe wire hose clamps. Series 300 stainless steel double-grip wire grips deep into the hose without cutting. Screw of the tightening element is friction locked to prevent slipping. Clamps fit three-ply hose from 1 to 2¼-in. ID. Made by **Joseph Pollak Co.**, 85 Freeport St., Boston 22, Mass.

▲ For more details circle NED-326 H7 on enclosed inquiry slip ▲

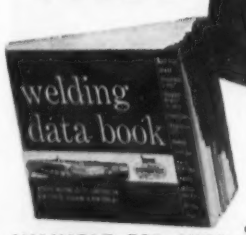
STOCK STRAIGHTENERS have Warner electric clutch-brake

Increased speed range and adaptability to automatic feeding are afforded in 308 series straightening machines for coil stock by use of a Warner electric clutch - brake assembly. Machines will supply straightened 0.018 to 0.065-in. thick stock 1 to 8 in. wide at speeds of 20 to 120 fpm through a 6-to-1 variable speed drive. Arm control assures instant stops and starts while motor runs continuously, free of overload damage. Straighteners will automatically feed stock to punch presses or shears using a die with a positive stop. Made by **F. J. Littell Machine Co.**, Automation Div., 4127 N. Ravenswood Ave., Chicago 13, Ill.

▲ For more details circle NED-327 H7 on enclosed inquiry slip ▲

FREE

NEW 180 PAGE WELDING GUIDE



VALUABLE FOR SHOP FOREMEN, WELDORS, PURCHASING AGENTS!

NEW ALLOYS—NEW TECHNIQUES! NEW INDEX SYSTEM FOR QUICK USE

Here's what you get:

- Thousands of time and money saving welding tips for all industries . . . many new!
- Newly simplified welding procedures and techniques!
- New drawings and diagrams showing best torch settings and electrode manipulations!
- New ways to minimize warping!
- How-to-weld tips for fabrication, maintenance, salvage and overlaying of all metals.
- Easier, faster methods for gouging, chamfering and removing of unwanted metal without special equipment!
- Preparation steps for all metals, showing how to save dismantling and preheating!
- How to get excellent machinability and color matching deposits.
- New ways to increase weld strengths and cut down amount of alloy used!
- How to get best possible results with conventional materials and Eutectic "Low Temperature Welding Alloys."® . . . over 160 alloys listed, many new!

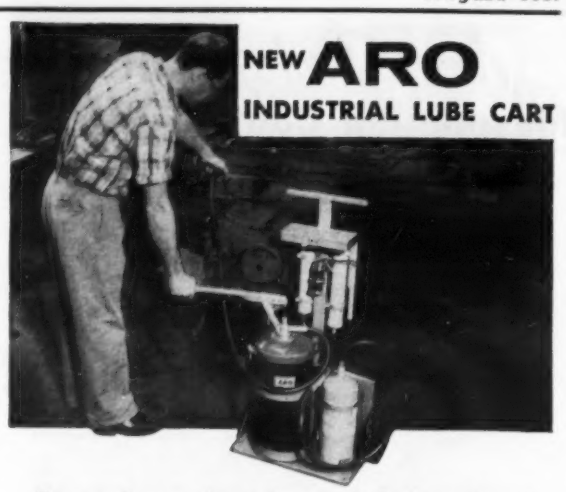
ACT NOW! This valuable free book is available now! Quantities are limited. Reserve your copy today. Ask your Eutectic District Engineer, or write:

TECHNICAL INFORMATION SERVICE FOR TIS 2790 E

® registered trademark

EUTECTIC WELDING ALLOYS CORP. 40-40 172nd St., Flushing 58, New York, N. Y.

▲ For more details circle NED-328 H7 on enclosed inquiry slip ▲



NEW ARO INDUSTRIAL LUBE CART

Speed up in-plant lubrication!

Complete multi-purpose lubricator. Portable—goes anywhere! Cuts lube time to minimum.

Carries ARO-PAK for safer one-hand operation, fluid lubricant pump, hand gun, suction gun, hand oiler, and E-Z outs for replacing fittings.

See your industrial distributor or write for Bulletin No. 105.

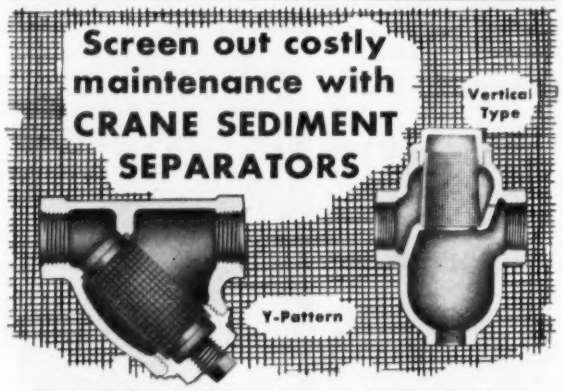
THE ARO EQUIPMENT CORPORATION GENERAL OFFICES—BRYAN, OHIO

Plants at Bryan and Cleveland, Ohio
Aro of California, 3141 S. Grand Avenue, Los Angeles 7. . . Aro Equipment of Canada, Ltd., Toronto 15, Ontario
Offices in All Principal Cities

ARO® INDUSTRIAL LUBE EQUIPMENT
ALSO . . . Air Tools . . . Air Hoists . . . Aircraft Products . . . Grease Fittings

▲ For more details circle NED-329 H7 on enclosed inquiry slip ▲

Screen out costly maintenance with CRANE SEDIMENT SEPARATORS



Crane Sediment Separators trap foreign matter in flow control lines—steam, water, air, gas or light oils, high or low pressure—and hold it for easy removal.

Dirt, scale, sand, etc., are prevented from damaging or spoiling product and ruining valve seats, automatic devices and other delicate equipment.

Extra large screening areas assure unrestricted flow of product. Blow-off connection for drain valve attachment permits easy cleanout. Y-patterns and vertical types. Full range of capacities and sizes.

Literature sent on request—See your Crane Representative or write to address below for literature.

CRANE VALVES & FITTINGS

PIPE • KITCHENS • PLUMBING • HEATING

Since 1855—Crane Co., General Offices: Chicago 5, Ill. Branches and Wholesalers Serving All Areas

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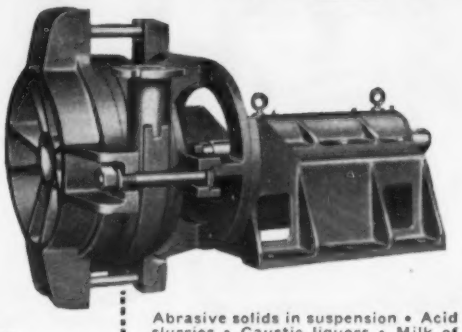
▲ For more details circle NED-331 H7 on enclosed inquiry slip ▲

Which of these Materials Needs More Efficient Handling in Your Plant?



The New MORRIS Type RX Slurry Pump

Abrasive solids in suspension • Acid slurries • Caustic liquors • Milk of lime • Soda Ash • Tailings • Slag Ore concentrates • Residue from filters • Coal • Silt Washery Solids Cement and glass sand slurries.

You'll get longer uninterrupted service with the Morris Type RX Slurry Pump:

- No internal studs to cause leakage
- Low pressure stuffing box practically eliminates packing troubles
- Impeller and liner removed without disturbing piping
- Moving parts available in various corrosion-abrasion resistant alloys

Specifications and operation data on request. No cost—no obligation.

MORRIS CENTRIFUGAL PUMPS

MORRIS MACHINE WORKS
Baldwinsville, N. Y.
Representatives in Principal Cities

For more details circle NED-332 H7 on enclosed inquiry slip

Tough, Taper-Forged Shovels Outlast Others

Taper forging puts metal where it's needed for extra strength – thick at the neck, shoulders, center-blade section; thinner at blade edges. Result: strongest shovels for their weight made.

Choose from the complete line of these long-lasting, moneysaving shovels. Each has turned steps for easier shoveling, fire-hardened, splinter-free handles.

Choose from four taper-forged models – DYNALITE, BANTAM, FOX, BULLDOG. Look for the taper-forged story on the label. True Temper, Dept. NED-5, 1623 Euclid Avenue, Cleveland 15, Ohio.

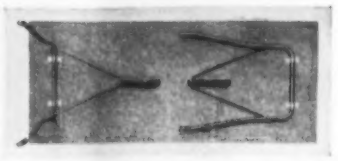
Send for FREE "TOOLS FOR INDUSTRY" catalog now. Lists all True Temper striking tools, shovels and heavy steel goods. No obligation.

TRUE TEMPER

YOU CAN LOOK TO TT FOR LEADERSHIP

For more details circle NED-333 H7 on enclosed inquiry slip

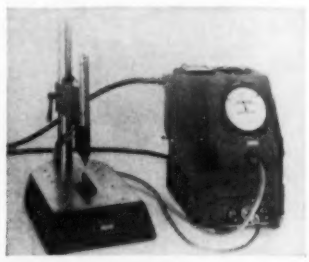
FOLDING TABLE LEGS
easily attached to table tops



Folding legs which lock automatically in both open and closed positions are available for attachment to wood, Masonite or plastic-surfaced tops. Set up or folded in a few seconds, the legs have no hinges. Attachment to top requires only positioning and driving screws. Legs make tables 30 to 36 in. wide, 29 in. high, of any length, with exact dimensions depending on requirements. Available from **Zenith Folding Legs,** 13346 Plymouth Rd., Detroit 27, Mich.

For more details circle NED-334 H7 on enclosed inquiry slip

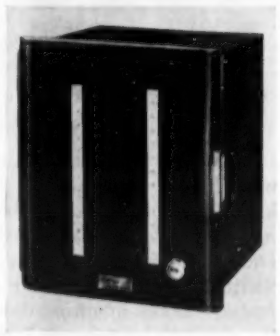
MEASURING GAGE
does not damage delicate parts



Light springs, bellows, diaphragms, vacuum tube grids and other delicate parts can be measured without distortion by the model 139B "pressureless" comparator. Sensitive contact of the air-electronic gage exerts practically no pressure on the workpiece. It is raised and lowered by a special wire which has rapid response to heat. As the wire heats when current is applied, it lengthens and upon contact voltage is removed, allowing wire to cool and raise the gaging element. Mechanism consists of gage head connected by a frictionless motion transfer unit to the contact and by a plastic hose to a Dimensionair air gage. Contact movement is noted on the Dimensionair dial. Made by **Federal Products Corp.,** 1118NR1 Eddy St., Providence 1, R. I.

For more details circle NED-335 H7 on enclosed inquiry slip

TEMPERATURE CHECKING SWITCHES
pushbuttons speed remote reading



Checking of many remote thermocouples or resistance bulbs from one convenient location is facilitated with line of pushbutton selector switches for temperature measuring circuits. Switches have palladium contacts, are housed in moisture-proof dust - tight steel case with gasketed door and are available for 12 to 72 points. Made by **Thermo Electric Co.,** Dept. NED, Saddle Brook, N. J.

For more details circle NED-336 H7 on enclosed inquiry slip

For more details circle NED-337 H7 on enclosed inquiry slip

FAFNIR PILLOW BLOCKS

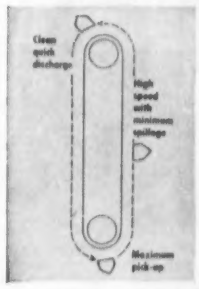
The great variety of types and sizes of Fafnir Ball Bearing Power Transmission Units makes possible precise selection to meet exact specifications. Units feature the Fafnir Wide Inner Ring Ball Bearing with Self-Locking Collar . . . easiest of all to install . . . replaceable if necessary.

In Pillow Blocks, Fafnir offers single and double bearing types. Single bearing types available in light, standard, and heavy series . . . self-aligning or fixed and floating. For complete details call your Fafnir distributor or write The Fafnir Bearing Company, New Britain, Conn.

FAFNIR BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

For more details circle NED-338 H7 on enclosed inquiry slip

There's greater strength, greater capacity in



LINK-BELT "HS" elevator buckets

Link-Belt "High-Speed" buckets with reinforced corners and end plates wrapped around body assure strength at points of greatest stress. Low front lip provides maximum pickup—high end plates minimize spillage. Primarily used for handling fine, free-flowing, granular materials. For complete features and selection data, send for Folder 2548-A.

LINK-BELT

"HS" ELEVATOR BUCKETS

LINK-BELT COMPANY: Executive Offices, Prudential Plaza, Chicago 1. To Serve Industry There Are Link-Belt Plants, Sales Offices, Stock Carrying Factory Branch Stores and Distributors in All Principal Cities. Export Office, New York 7; Canada, Scarboro (Toronto 13); Australia, Marrickville (Sydney), N.S.W.; South Africa, Springs. Representatives Throughout the World. 14,467

For more details circle NED-339 H7 on enclosed inquiry slip

To meet your needs for variable speeds

ASK FOR CLEVELAND SPEED VARIATOR BULLETIN K-200

THIS unique variable speed drive gives you infinitely variable, stepless speeds up to 9:1 (from ⅓ to 3 times input speed). Precise adjustment gives instant, smooth speed change by manual, automatic or remote control. Simple construction, compact, quiet running. No belts, no complicated linkage. Thousands in use.

THE CLEVELAND WORM & GEAR COMPANY
Speed Variator Division, 3283 E. 80th St., Cleveland 4, Ohio
Sales Representatives in all major industrial markets

For more details circle NED-340 H7 on enclosed inquiry slip

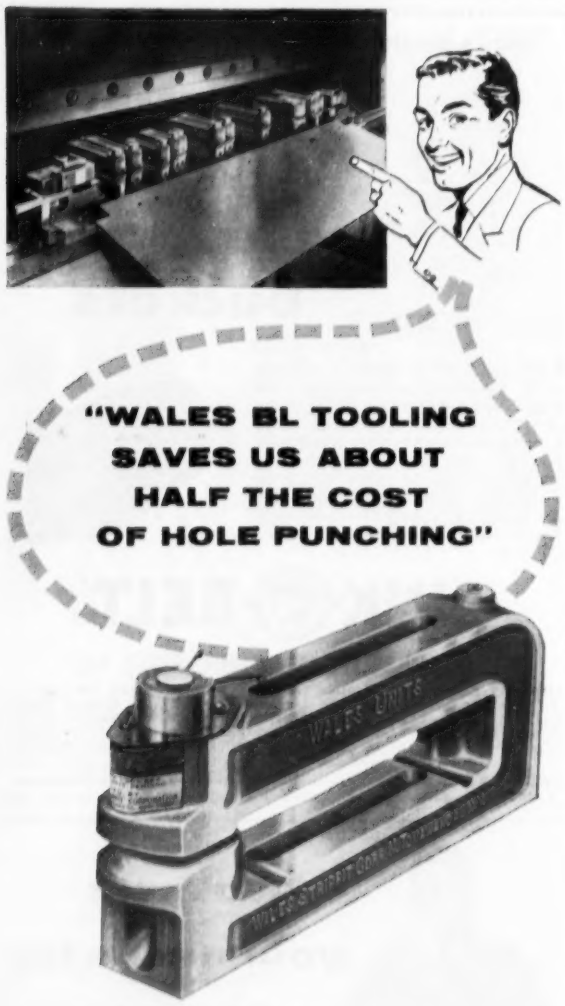
EVERY ENGINEER will want a copy of this BULLETIN

WRITE FOR BULLETIN 113. Complete details and mounting dimensions on Hannifin Series "H" Square Type Hydraulic Cylinders—2,000 p.s.i. (3,000 p.s.i., non-shock) maximum pressure. This is the cylinder with the new, externally removable cartridge gland...the biggest improvement in cylinder design in the last 50 years. A complete line! 9 bore sizes from 1½" to 8"...13 standard mountings, many combinations. Steel heads. Steel cylinder bodies, "TRU-BORED" and honed. Piston rods ground, polished and hard chrome plated. Send for Bulletin 113. It's an easy, convenient catalog for use in layout work.

HANNIFIN

Hannifin Corporation, 527 South Wolf Road, Des Plaines, Ill.
Air and Hydraulic Cylinders • Presses • Air Control Valves

For more details circle NED-341 H7 on enclosed inquiry slip



"**WALES BL TOOLING** is fast and accurate in our shop. Punches, dies and stripping mechanism are all contained right in the tooling, so our presses have a minimum of down time for change-overs. BL's are just about perfect for punching stock up to ⅛" thick and we get any type of pattern needed with the same units."

Nothing attached to the press ram. Alignment of punch and die is permanent. Notching equipment may be used in same set-up. Inventory is kept down and PRODUCTION UP!

SEND FOR BULLETIN No. 21-G

The complete story of BL tooling is here for the asking.
Send for your copy today.

WALES Strippit COMPANY
A UNIT OF HOUDAILLE INDUSTRIES, INC.
AKRON, NEW YORK
WALES-STRIPPIT OF CALIF., SOUTH GATE, CALIF.
WALES-STRIPPIT OF CANADA LTD., HAMILTON, ONT.
"...the Wales-Way is the PLUS-PROFIT way"

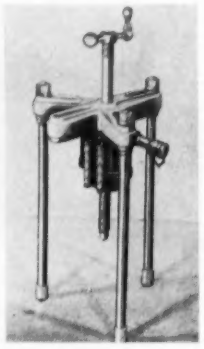
For more details circle NED-342 H7 on enclosed inquiry slip

⅜-IN. ELECTRIC DRILL has ⅜-in. capacity in steel

Power and chuck capacity to handle difficult drilling jobs are built into ⅜-in. model 149 electric drill. Power is transmitted to drill chuck by double compound alloy steel gears that are driven by a 2.6-amp Universal motor which turns at no-load speed of 1000 rpm. Unit has three-jaw geared chuck and drill capacity of ⅜-in. in steel and ¾-in. in wood. Other features include trigger switch, polished aluminum alloy frame, auxiliary plastic side handle, 7-ft strain relief cord with three-prong connector and plastic insulated wiring. Made by **Porter-Cable Machine Co.,** 113 Exchange St., Syracuse 8, N. Y.

For more details circle NED-343 H7 on enclosed inquiry slip

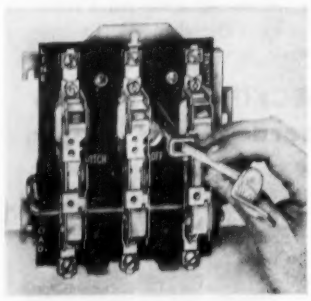
PUSH-PULL DEVICE used with two or three legs



By changing the position of the legs in the puller head, this push-puller is quickly set up for two or three-leg use. Legs of varying lengths vary the reach of the device. Addition of connectors permits use of legs in combination. Made by **Owatonna Tool Co.,** 436 N. Cedar St., Owatonna, Minn.

For more details circle NED-344 H7 on enclosed inquiry slip

ADJUSTABLE SHAFT DISCONNECTS available in 30 to 200-amp ratings



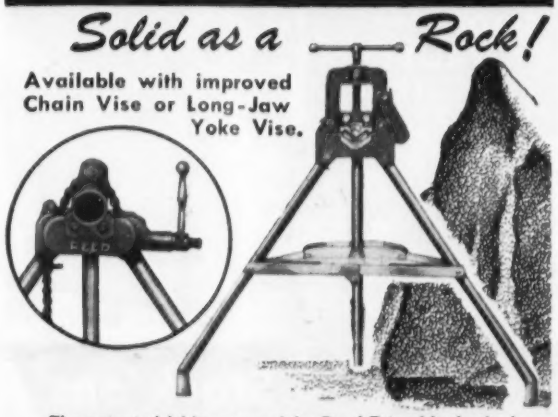
Telescopic operating shafts in Style HCI disconnects eliminate the need for supporting structures compensating for differences in depth between enclosure and disconnect in control centers, switchboards, machine tool control panels and other electrical control equipment. Adjustment range is 5 in. in the 200-amp model and 2 in. in the other units. Standard and long length shafts are offered, latter permitting mounting 200-amp switches in boxes up to 20 in. deep and smaller switches in up to 20-in. deep boxes. Switches have individual pole units, convertible top fusing, choice of up or down and left to right switching motions, and cover locks. Made by **General Electric Co.,** Circuit Protective Devices Dept., Section TC-1, 41 Woodford Ave., Plainville, Conn.

For more details circle NED-345 H7 on enclosed inquiry slip

REED PORTABLE Folding-Tray TRIPOD VISES

Solid as a Rock!

Available with improved Chain Vise or Long-Jaw Yoke Vise.



The patented folding tray of the Reed Tripod locks the legs solidly to end spring and recoil. Tripod folds compactly for convenient, one-hand carrying. Sets up or takes down easily.

The improved Chain Vise features a convenient side handle which ends fumbling or skinned knuckles. Capacity from ⅛" to 4" makes it ideal for construction or maintenance work.

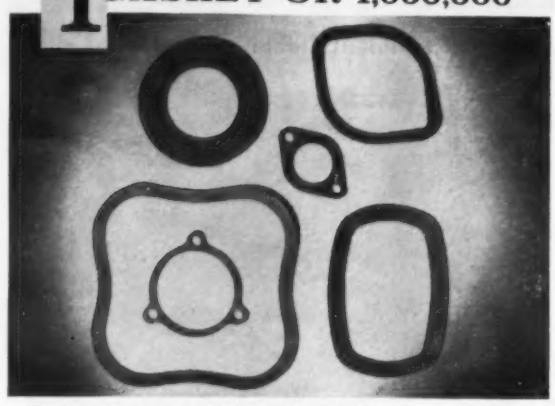
Yoke Vise Model features the patented REED long-bearing alloy steel jaws which hold any pipe from ⅛" to 2½" with a slight handle pressure. Special features eliminate lost motion.

Ask your supplier or write for free literature.

REED MANUFACTURING COMPANY
ERIE • PENNSYLVANIA • U. S. A.

For more details circle NED-346 H7 on enclosed inquiry slip

1 GASKET OR 1,000,000



Garlock has the facilities to die cut, hand cut, mold or machine all sizes and shapes of gaskets in any quantity. Yes, whether you are a small or big user, Garlock can supply you with the proper gaskets made accurately to your blueprint specifications or template. Widely used Garlock gasketing materials are:

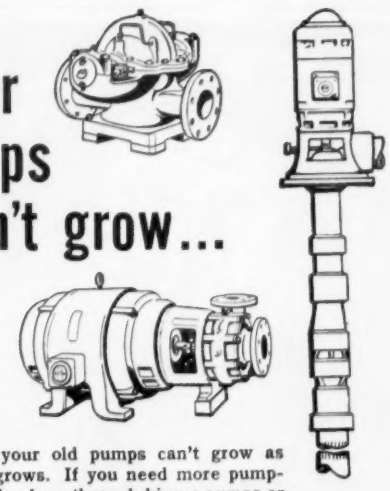
- Compressed Asbestos with rubber, neoprene or buna-N-binder
- Woven Asbestos
- Rubber—plain, cloth inserted or wire inserted
- Buna-N
- Thiokol—plain or cloth inserted
- Silicone—plain or cloth inserted
- "Teflon"
- Neoprene—plain or cloth inserted
- Vegetable Fibre
- Cork-Fibre
- Asbestos—metallic
- Leather

THE GARLOCK PACKING COMPANY, Palmyra, New York
For Prompt Service, contact one of our 30 sales offices and warehouses throughout the U. S. and Canada.

GARLOCK

For more details circle NED-347 H7 on enclosed inquiry slip

Your pumps can't grow...



Unfortunately, your old pumps can't grow as your business grows. If you need more pumping, it can only be done through bigger pumps or more pumps.

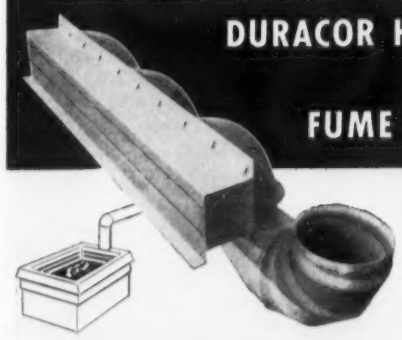
The Fairbanks-Morse line provides the right pump for every industrial application—air conditioning, refrigeration, heating, transfer, booster service, casting washers, fire protection, coolant circulation and, of course, just plain industrial water supply.

Call your Fairbanks-Morse Field Engineer today, or write Fairbanks, Morse & Co., Dept. NED-8, 600 So. Michigan Avenue, Chicago 5, Illinois.

FAIRBANKS-MORSE
a name worth remembering when you want the BEST

For more details circle NED-348 H7 on enclosed inquiry slip

CORROSION-PROOF DURACOR HOODS AND FUME DUCTS



DURABLE glass fibre reinforced plastic in a complete range of shapes and sizes

Newly developed for handling fumes from highly corrosive chemicals in operations such as plating and pickling, DURACOR hoods and ducts provide permanent resistance to corrosion.

They are fabricated from specially compounded thermo-setting plastics which are combined with glass or other synthetic fibers. Hoods and ducts can be produced in almost any desired shape. They are light in weight, durable and strong (up to 30,000 psi flexural strength). Write today for complete information.

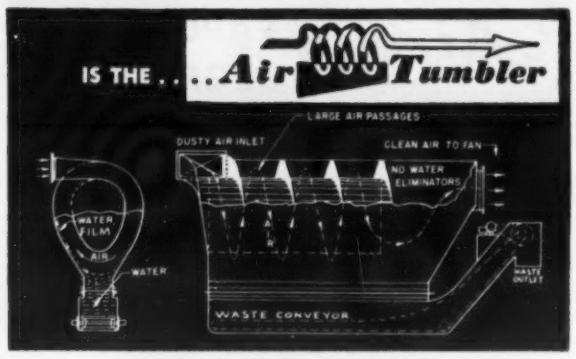
DURACOR CEILCOTE

DURACOR is another development by CEILCOTE!

THE CEILCOTE COMPANY, INC.
7523-CC 4838 Ridge Rd. Cleveland 9, Ohio

For more details circle NED-349 H7 on enclosed inquiry slip

The MASTER of DUST in INDUSTRY



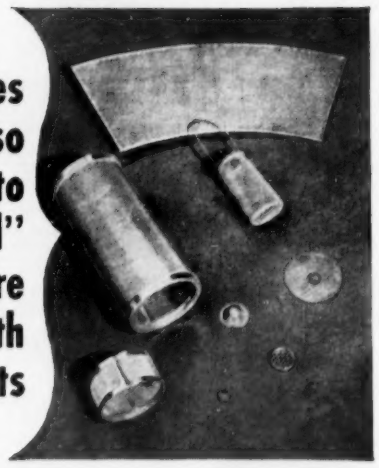
HIGH EFFICIENCY WITH LOW WATER EVAPORATION

Write For Bulletin No. 551

DUST SUPPRESSION & ENGINEERING CO.
P. O. BOX 67 • LAKE ORION, MICHIGAN

For more details circle NED-350 H7 on enclosed inquiry slip

Our Slogan... NEWARK for ACCURACY



applies also to "fabricated" wire cloth inserts

Our slogan, Newark for Accuracy, has long been known to users of bulk wire mesh cloth, wire space cloth and wire filter cloth. It is now becoming more and more familiar to users of parts fabricated from wire cloth made by a fast-growing division of our company.

These parts, similar to those illustrated, are fabricated or assembled for our customers by skilled workmen in our large department specializing in this work. We are equipped to handle small lots or in production quantities of anything from large jet intake screens to tiny fuel pump strainers.

We shall be glad to quote on your requirements; and, if necessary, our experienced engineers stand ready to assist you in the design of the part so as to make the best use of the mesh and to assure the most economical manufacture of the part as a whole.

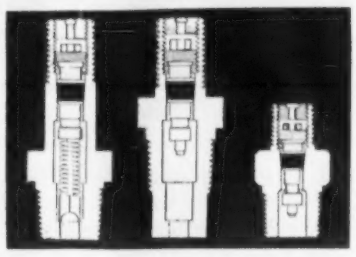
Remember, since we weave the cloth used, and do all the necessary cutting, fitting, stamping, punching, forming, binding, welding and soldering; there is only one responsibility... OUR responsibility... to deliver parts that live up to our slogan — Newark for Accuracy.

We can furnish wire cloth woven from all commercially used metals. Sizes range from 4 inches (space cloth) to 400 mesh.

Newark Wire Cloth COMPANY
351 VERONA AVENUE • NEWARK 4, NEW JERSEY

For more details circle NED-351 H7 on enclosed inquiry slip

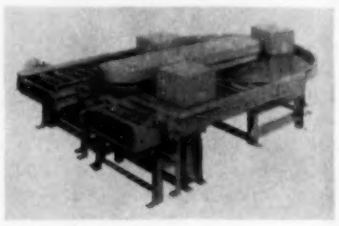
MINIATURE VALVES
have 1/8-in.-27 dry seal threads



With the same internal function as a tire valve, these three miniature control valves are made from 7/16-in. hexagon brass and have 1/8-in.-27 dry seal pipe threads. They accommodate long and short valve cores and valve caps in water pumps, vacuum or pressurized containers, fire extinguishers, air and liquid dispensers, and inflatable air products. Cores impervious to Freon and propane gases, acids, lubricants, greases and certain liquids are available. Made by **A. G. Kaddis Screw Products Co.**, 312 Hudson Ave., Rochester 5, N. Y.

For more details circle NED-352 H7 on enclosed inquiry slip

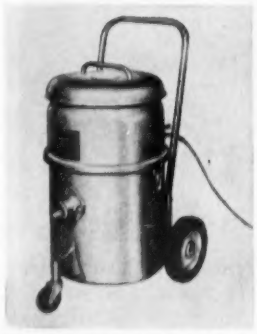
CONVEYOR TURNTABLE
transports through 180-degree turn



Cartons, cases and packages are transported through a 180-degree turn by this conveyor turntable, suited for installations where space is at a premium. It can be used with live roller or powered belt conveying systems. An endless traveling inner guide belt insures correct package tracking throughout the turn and proper discharge. Drive is through spur gears and variable speed motor. Belt tensioning is automatic. Made by **Alvey-Ferguson Co.**, Dept. NE, 1565 Disney St., Cincinnati 9, O.

For more details circle NED-353 H7 on enclosed inquiry slip

VACUUM CLEANER
tricycle-mounted 34-lb unit

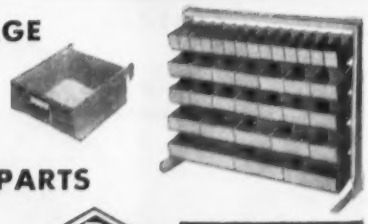


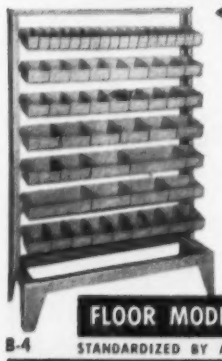
Tubular handle and tricycle type rolling gear facilitate moving of the Junior vacuum cleaner up and down stairs and on the level. It weighs 34 lb, is quiet in operation and has a disposable paper bag with about 800 sq in. of filter area. The power unit lifts off for easy removal of the plastisol-lined 18-gage seamless steel tank which holds 2/3-bu of dry dirt or 5 gal of water. Water shutoff is adjustable. Power is furnished by two 1/2-hp universal motor fan units. Made by **Kent Co.**, 827 Canal St., Rome, N. Y.

For more details circle NED-354 H7 on enclosed inquiry slip

BIN UNITS BENCH or FLOOR BY Bathey

FOR STORAGE or ASSEMBLY OF SMALL PARTS





MBC BENCH MODELS

FIVE SIZES *of removable* **BIN BOXES**

Visible parts handling saves time and money!

Write for Catalog

FLOOR MODELS

DEALERS IN PRINCIPAL CITIES

B-4 STANDARDIZED BY AMERICAS LEADING MANUFACTURERS

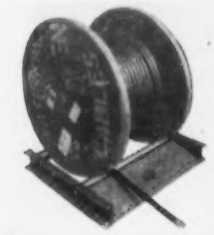
BATHEY MFG. CO.
100 S. MILL STREET PLYMOUTH, MICH.

For more details circle NED-355 H7 on enclosed inquiry slip

SAVE TIME AND MONEY HANDLING CABLE REELS

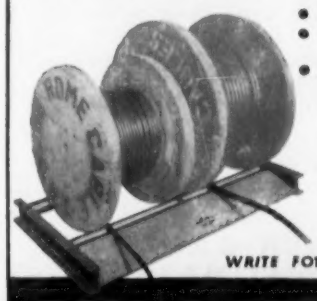
Easy, simple, fast! Minimum loading and unreeling effort. Modernly efficient.

Style A 2,000 lbs. cap. for reels up to 28 in. wide. 46.50 f. o. b. Cincinnati.



FOR WIRE, CABLE, ROPE

- Heavy gauge steel frame
- Slanted front
- Ball bearing adjustable rollers
- No jacks
- Handles any reel diameters
- Positive roller lock for unloading



Style B 4,000 lbs. cap. for 2 reels up to 24 in. wide each or 1 reel up to 48 in. wide. 84.50 f.o.b. Cincinnati.

WRITE FOR DETAILS TODAY

ROLL•A•REEL 4630 Reading Road Cincinnati 29, Ohio

For more details circle NED-356 H7 on enclosed inquiry slip

NEW! COMPACT POWER SWEEPER Priced for Small Plant Budgets!

Here's the answer for efficient power sweeping for plants of all types and sizes. The new WAYNE "604" power sweeper is smaller yet engineered to sweep faster, better.... in and around tight spots, closer to machinery and equipment.

Superior features in every way—

1. No dust bag to empty. Dust-free operation.
2. More effective dirt hopper capacity.
3. Powered and geared for all sweeper conditions.
4. Longer-wearing brushes get all the dirt.
5. Vacuum cleaning attachments available.

For literature or demonstration write:

new WAYNE '604'

WAYNE MFG. CO. · 1377 E. Lexington Ave., Pomona, Calif.
World's Largest Producer of Power Sweepers for Cities and Industry

For more details circle NED-357 H7 on enclosed inquiry slip

outstanding accuracy at lowest cost!

Find out how fast, accurate and economical small milling *can be!* U. S. Burke milling machines provide outstanding quality, dependability and convenience in operation... for hundreds of dollars less than leading competitors. Investigate U. S. Burke time and money-saving performance now!

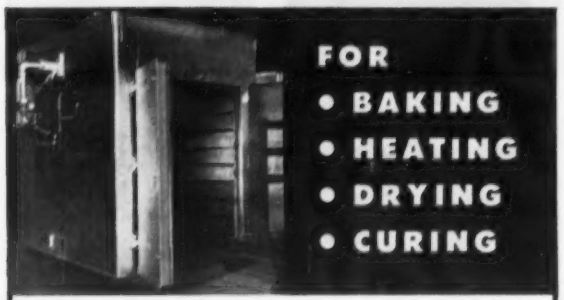
U. S. No. 1 HAND MILLING MACHINE
. . . half the cost, twice the value!

A top-quality precision production tool . . . priced so low it's actually profitable to spot it around "looking for work" that can be kept out of the milling section. Accurate, rigid, simple and adaptable. Easily equipped with air-hydraulic feeds for high production. Detailed literature on request.

THE U·S·Burke MACHINE TOOL DIVISION
2 BROTHERTON ROAD, CINCINNATI 27, OHIO

For more details circle NED-358 H7 on enclosed inquiry slip

NOW! A TRULY VERSATILE STANDARD KILN TYPE OVEN



MOCO has incorporated many custom, money-saving features into this standard oven — using gas fuels or electricity.

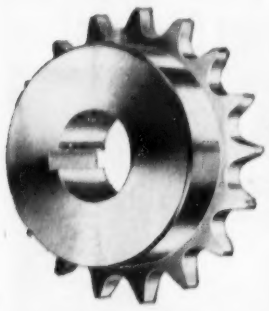
They offer *maximum temperature uniformity* and *complete safety equipment* at amazingly low initial cost. You can depend fully on a MOCO-engineered product!

MORE INFORMATION?
If you are in the market for a standard oven, be sure and send for this informative brochure.

MICHIGAN OVEN COMPANY
419 Brainard, Detroit 1, Mich.

MOCO

▲ For more details circle NED-359 H7 on enclosed inquiry slip ▲



NOW you can ELIMINATE BORING EXPENSE with BOSTON Gear.

STANDARD STOCK
BORED-TO-SIZE SPROCKETS

Complete with Keyway and Set screw

FINISH BORED — READY TO INSTALL

Single width steel sprockets ⅜" Pitch through 1" Pitch — in 76 commonly used Pinion Sizes — with a full selection of finished bore diameters for each sprocket.

YOU SAVE EXPENSE

of reboring, keyway cutting, drilling and tapping for set screw . . . and you get BOSTON GEAR quality, the top standard for precision and performance.

OFF-THE-SHELF DELIVERY

from your nearby BOSTON GEAR Distributor. Consult his factory-trained specialist for complete information on Sprockets for any drive. Ask for Catalog 56.

Boston Gear Works,
69 Heyward St., Quincy, Mass.

76 SIZES
321 STOCK BORES

Call your **BOSTON Gear DISTRIBUTOR**

7124 TRANSMISSION PRODUCTS FROM LOCAL STOCK — AT FACTORY PRICES

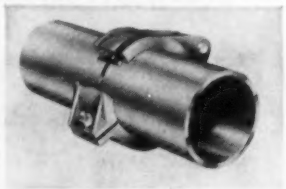
▲ For more details circle NED-360 H7 on enclosed inquiry slip ▲

PIPE FITTING-SEAL stops leaks at threaded connections

Threaded Teflon insert in improved Tru-Seal self-sealing pipe fitting stops leaks at threaded pipe connections. Edges of the nut type fitting are rounded off to make the device compact and to prevent over-tightening. The gold colored chromated cadmium surface treatment will withstand a 100-hr salt spray test. Unit holds its seal at 10,000 psi and from −200 to 500° F. Plastic insert is impervious to most chemicals. Ten sizes for ⅛ to 2½-in. pipe sizes range in thickness from 5/32 to 17/32-in. Made by **Flick-Reedy Corp.**, Tru-Seal Div., 2002-08 N. Hawthorne Ave., Melrose Park, Ill.

▲ For more details circle NED-361 H7 on enclosed inquiry slip ▲

PIPE & TUBE COUPLING installed on plain pipe ends

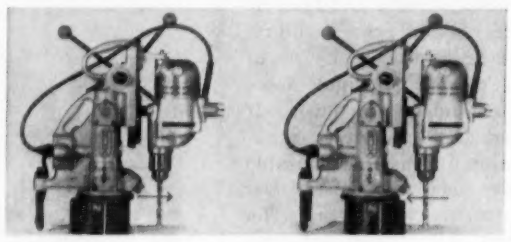


Installed with an open-end or ratchet wrench, without special preparation, on lightwall stainless steel pipe or tubing, Smooth Seal self-aligning coupling is corrosion-proof. It is suitable for temporary or permanent connections, emergency repairs or testing. Tapered gasket and internal lips assure secure seal. Couplings handle pressures to 100 psi and are available for pipe sizes up to 12 in. Made by **Swepco Fittings, Inc.**, Dept. N, 6 Clifton Blvd., Clifton, N. J.

▲ For more details circle NED-362 H7 on enclosed inquiry slip ▲

MAGNETIC DRILL POSITIONER for drilling, reaming and tapping

Mechanical-action positioning device incorporated in this Bux portable magnetic drill press facilitates accurate positioning of tool for drilling, tapping or



reaming. Turn of locking handle frees the drill post for radial positioning up to 300 degrees, or for lateral movement to permit tool-hole alignment. The powerful electromagnetic base holds securely on work, and all adjustment is by means of the positioner. Made by **Buck Mfg. Co.**, Dept. 1, 1355 N. Tenth St., San Jose, Calif.

▲ For more details circle NED-363 H7 on enclosed inquiry slip ▲

Saginaw sets the pace for industrial casters

Saginaw

get all the facts about the casters that are engineered for modern material handling . . .

SAGINAW PRODUCTS CORPORATION
Saginaw 3, Michigan

53

PLEASE SEND ME YOUR NEW ENGINEERING MANUAL NO. C-56

NAME _____

COMPANY _____

ADDRESS _____

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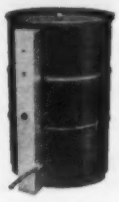
Aircon VAPOR DEGREASERS

ANY SIZE . . .
Standard or Custom

Aircon Vapor Degreasing Systems are available in a complete line, ranging in size, from the smaller bench and barrel-type units to the larger, permanent, high capacity degreasers.



Aircon Degreasers are:
- GAS, ELECTRIC OR STEAM HEATED
- COMPLETE UNITS WITH ALL SAFETY EQUIPMENT

NO EXTRAS TO BUY!

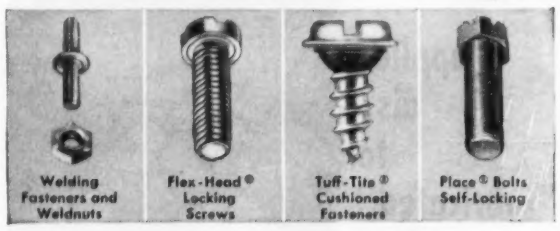
Write today for full information

WE ARE DESIGNERS AND ENGINEERS OF SPECIAL DEGREASING EQUIPMENT. CONSULT US ON YOUR DEGREASING PROBLEMS.

Armstrong & White
CHESWICK, PENNSYLVANIA

▲ For more details circle NED-365 H7 on enclosed inquiry slip ▲

Fastening Specialties by NATIONAL Save Time...Trouble



It will pay to make National your one source for standard, specialty or specially designed fasteners. Write today for National's Special Products booklet, or for information on the fastening specialty that interests you.

THE NATIONAL SCREW & MFG. CO. • CLEVELAND 4, OHIO
Pacific Coast: National Screw & Mfg. Co. of California
3423 South Garfield Ave., Los Angeles 22, California

National PRODUCTS — Fasteners, Hodell Chains, Chester Hoists

▲ For more details circle NED-366 H7 on enclosed inquiry slip ▲

ROBINTRONIC
AUTOMATIC LEVEL INDICATOR FOR BULK MATERIALS HANDLING

Single Unit
One probe and complete self-contained electronic control unit.

Dual Unit
Two independently operating probes and single control unit.

This accurate, easily installed electronic unit actuates an audible or visible signal to warn operators when materials vary from the pre-set level. When equipped with a power relay, it can also control the flow of materials by stopping and starting motors and other equipment.

RoBINtronic requires neither adjustment nor lubrication. It is engineered for heavy industrial service and functions with materials of all densities from rock and coal to grain and sand.

Send for free Bulletin 166, Department R, Hewitt-Robins, Stamford, Connecticut.

HR

HEWITT-ROBINS

▲ For more details circle NED-367 H7 on enclosed inquiry slip ▲

Why INDUSTRY IS BUYING THE NEW EAGLE Safety Cans

the approved SAFE way to handle flammable liquids

- A complete new line with a good old name
- Listed by Underwriters Laboratories
- Approved by Factory Mutual
- Available in 5 sizes from 1 qt. to 5 gal.
- No waste, no splash, no spill
- Strong quality construction
- Self-adjusting guard cap prevents leakage
- Safe for handling all flammable liquids

1 qt., 2 qt., 1 gal. Safety Cans come with trigger-grip handle, as illustrated at top right. 2½ and 5 gal. sizes feature free-swing handle (left).

See Us at Booth #317
National Safety Show
Chicago—October 21-24

EAGLE MANUFACTURING COMPANY
Wellsburg, West Virginia
Serving Industry Since 1894

For more details circle NED-368 H7 on enclosed inquiry slip

PUMP LIQUIDS GASES SLURRIES

WITHOUT CONTAMINATION OR CORROSION

Wavelike Motion of Steel Fingers Forces Material Through Tubing

Write for Descriptive Literature

0.2 cc per minute to 4.5 g.p.m.
Prices **$60.00** to **$550.00**
depending on size and accessories

SIGMAMOTOR, INC.
33 North Main St. • Middleport, N.Y.

For more details circle NED-369 H7 on enclosed inquiry slip

Cincinnati Planer maintains level to .0005" installed on 8 AIR-LOC mounts. Leveling screws permit precision adjustment.

PERMANENT PRECISION MACHINE INSTALLATION (accurate to .0005") IS NOW POSSIBLE

Air-Loc

Free booklet tells the whole story. Send for your copy and free samples.

machine mounts give you:

1. Permanent precision leveling of lathes, grinders, etc., maintained to .0005".
2. Complete resistance to oil, water, etc.
3. Low initial cost.
4. Elimination of bolting or cementing machines to floors.
5. Reduced machine vibration and noise — as much as 85%.

AIR-LOC DIVISION
CLARK, CUTLER, McDERMOTT CO., FRANKLIN, MASS.

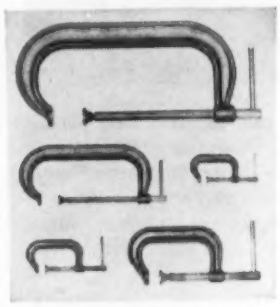
For more details circle NED-370 H7 on enclosed inquiry slip

INDUSTRIAL CLUTCHES
have ceramic base friction material

Increased capacity, better heat disposal and ventilation, cool operation, long wear and minimum of adjustments reportedly result from use of ceramic base friction material in Morlife clutches for heavy duty and off-highway machines. They are available in over-center and spring-loaded types in sizes to 18 in. and with single and double plate designs engineered for specific applications. Made by **Borg-Warner Corp.**, Rockford Clutch Div., Dept. E, 1301 Eighteenth Ave., Rockford, Ill.

For more details circle NED-371 H7 on enclosed inquiry slip

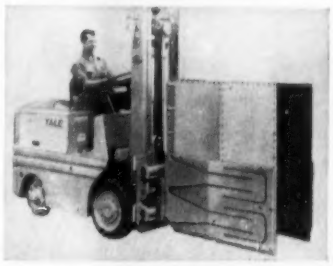
C-CLAMP
available in seven sizes and weights



Deep throat, heat treated forged body, adjustable handle, floating swivel and wide-thread screw are features of this heavy duty industrial C-clamp. Parts are copper plated to resist adhesion of weld spatter. Clamp is available in seven sizes and weights, ranging from 2 to 12 in. Made by **Industrial Clamp Co.**, 6445 Gratiot Ave., Detroit, Mich.

For more details circle NED-372 H7 on enclosed inquiry slip

LIFT TRUCK CARTON CLAMP
facilitates handling and storage



Mounted on standard industrial power truck, this carton clamp has narrow arm for close stacking of cartons and optimum use of storage space. Articulation is through deflected metal of arm. Aluminum clamp pads, two on each arm, have rubber pads for pressure distribution on load. Pad reach can be up to 54 in., range of clamp is 22 to 68 in., and typical load capacity is 2400 lb at a 21-in. load center on a 4000-lb capacity truck. Three pressure settings provide for handling various carton loads. Made by **Yale & Towne Mfg. Co.**, Dept. M-1, Roosevelt Blvd. & Haldeman Ave., Philadelphia 15, Pa.

For more details circle NED-373 H7 on enclosed inquiry slip

BREAK the Coating Barrier

PROVE IN YOUR OWN PLANT
... tough, elastic GACO N-700 Neoprene protects where other coatings fail ...

Protect plant structures and equipment against corrosive fumes, splash, and spray with GACO N-700 liquid neoprene maintenance coating. GACO N-700 gives lasting protection at *lower* applied cost . . . self cures to form a tough elastic protective coating. Stop coating and recoating with ordinary paints—break the coating barrier—use GACO N-700 for the really tough corrosion situations.

Here's proof that GACO N-700 provides protection under severe corrosive conditions:

> **A chemical processing plant in Northern New Jersey** found that ordinary maintenance paints lasted less than six months because of highly corrosive fumes plus salt ocean air. GACO N-700, used for exterior coating of storage tanks, pipe lines, ladder and steel work, *is still serviceable after five years.*

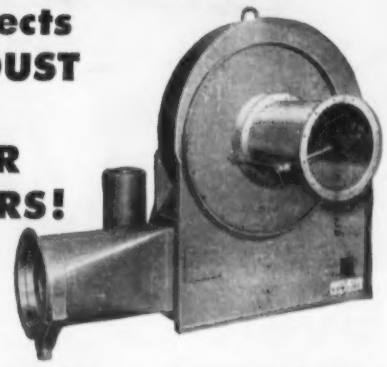
There's a GACO protective coating for every industrial need that gives results far surpassing those provided by ordinary coatings. Write for details.

THE MARK OF CORROSION PROTECTION
GATES ENGINEERING COMPANY
Wilmington 99, Delaware
PIONEER LEADER IN PROTECTIVE COATINGS

Authorized Distributors in principal cities U.S.A. • Australia • Belgium • England • Finland • France • Israel • Japan • Norway • Okinawa • Philippine Islands • Puerto Rico • Sweden. In Canada: Gaco Products Ltd., Brantford, Ontario.

For more details circle NED-374 H7 on enclosed inquiry slip

Type W ROTO-CLONE collects MORE DUST for FEWER DOLLARS!



Lowest priced wet dust collector in its class (units of 1500 to 50,000 cfm capacity designed for high efficiency dust collection, including extreme fines).

Requires less space because ROTO-CLONE combines collector, exhauster, motor and drive in one compact, shop-assembled package.

An outstanding performer because, with the addition of water sprays, the effectiveness of this dynamic precipitator is extended to the collection of the finest, lightest dust particles.

Write us for Bulletin Number 274.

American Air Filter COMPANY, INC.
391 Central Avenue, Louisville 8, Kentucky
American Air Filter of Canada, Ltd., Montreal, P. Q.

For more details circle NED-375 H7 on enclosed inquiry slip

new Formica® flexible copper clad

fits larger circuits . . . into smaller spaces

The remarkable new Formica flexible copper clad laminated plastics save space like never before. Notice how a 40 square inch flat circuit above is contained in a space only 10 cubic inches!

Works fine, too. There's no shorting because of the insulation the flexible sheet provides.

Flexible copper clad offers the product designer circuits in new shapes . . . plus increased miniaturization. For example, as shown above, an .008" sheet can be confined in a ¾" diameter tube.

For complete information on the design improvement possibilities Formica flexible copper clad holds for your products—civilian or military—write for new FF 89 data sheet. Formica Corporation, subsidiary of American Cyanamid, 4551-7 Spring Grove Ave., Cincinnati 32, Ohio.

Save your engineers ... *use Formica-4 ... the complete laminated plastic service*

FORMICA 4 CYANAMID

FF 1417 A

1. Application engineering 2. Research 3. Fabricating 4. Customer stock service

For more details circle NED-376 H7 on enclosed inquiry slip

EDMONT CASE NO. 620: For winding motors, a top appliance maker had been using $10.50 a dozen goatskin gloves which wore 6 shifts. Edmont's low cost vinyl impregnated glove (No. 101 Werx) wore 11 shifts, reduced glove costs 69%.

Job-fitted glove cut costs 69%

No. 101 Werx slip-on style

In case above, the Edmont glove reduced costs because it fit the job. The Werx will also save money on jobs where canvas gloves are now being used. It outwears canvas at least 4 to 1, is washable and lint-free. Workers like its comfort, non-slip grip and dexterity. Sizes for both men and women. Slip-on and knitwrist styles.

Free Test Offer to Listed Firms: We make more than 50 types of gloves to fit all jobs. Tell us your operation, materials handled, temperature condition. We will supply samples of the correct glove for on-the-job testing.

Edmont JOB-FITTED GLOVES

Edmont Manufacturing Company
1240 Walnut Street, Coshocton, Ohio
In Canada write MSA, Toronto

For more details circle NED-377 H7 on enclosed inquiry slip

Drive out
FOUL AIR
Blow in
FRESH AIR
with Coppus Type A Ventilator

Assure greater safety, comfort for workers . . . get greater efficiency.

Drive out dangerous fumes, gases, stagnant or hot air from boilers, cable manholes, tanks, vats and other confined places. *Supply fresh air continuously.*

Send now for further information. Coppus Engineering Corporation, 408 Park Avenue, Worcester 2, Mass.

MANHOLES made safe for workers' entrance within minutes.

BOILER AND TANK INTERIORS cooled by Coppus. Fresh air supplied continuously.

ANOTHER **COPPUS** "BLUE RIBBON" PRODUCT

For more details circle NED-378 H7 on enclosed inquiry slip

KEEP MACHINES RUNNING
...reduce maintenance costs,

with **DEUBLIN ROTATING UNIONS**

¾" Size Union Illustrated

for water, steam and air service!

Here is a compact, efficient rotating union—

- ★ LEAKPROOF
- ★ CORROSION PROOF
- ★ EASY TO SERVICE
- ★ VIRTUALLY FRICTIONLESS
- ★ PRECISION BUILT FOR LONGER LIFE
- ★ INTERCHANGEABLE with any other rotating union
- ★ VERSATILE—For Monoflow or Duoflow operation, available in ½", ¾", 1", 1¼" and 1½" sizes
- ★ MINIMUM TORQUE makes it ideal for high speed applications

See how this dependable, new rotating joint can reduce inventory of replacement parts because of Deublin's standardization of sizes. Keep "shut downs" from wrecking your production schedules. Pays for itself many times over.

Write today for full details and prices.

DEUBLIN COMPANY
1151 Waukegan Road
Glenview, Ill. (Chicago Suburb)

For more details circle NED-379 H7 on enclosed inquiry slip

HEAVY DUTY CASTER
has 1000-lb capacity

Neoprene bearing seals of this 1000-lb capacity heavy duty caster protect swivel and wheel bearings from steam, water, chemicals, dirt and other contaminants. It meets military specifications and has a four-position swivel lock to aid steering. Caster has two 8 x 2½-in. Moldon rubber tired wheels with tapered roller bearings and is designed for hand or power drawn equipment. Made by **Colson Corp.**, 3704 Cedar St., Elyria, O.

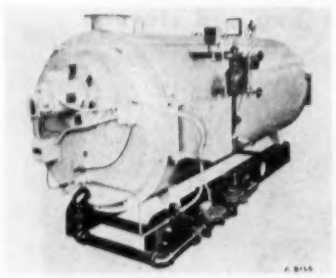
For more details circle NED-380 H7 on enclosed inquiry slip

TEST POWDER BLOWER
speeds magnetic particle testing

Operating on any 20-psi source of compressed air, this No. 58600 powder blower assures proper application of dry Magnaflux powder for flaw detection. Simple adjustment controls the density of the cloud of powder, and two pushbuttons permit selection of either powder or clean air. By holding the gun level at a distance from the area being tested, the particles gently flood the entire area, giving clear indications when cracks are present. Made by **Magnaflux Corp.**, 7316 W. Lawrence Ave., Chicago 31, Ill.

For more details circle NED-381 H7 on enclosed inquiry slip

PACKAGED BOILERS
line includes 50 and 60-hp models



Progress Packaged boiler line has been extended to include 50 and 60-hp models of 1,670,000 and 2,010,000 Btu, in addition to ratings up to 40 hp previously announced. They are factory tested and ready for installation and bear ASME and UL approval. Forced draft system combined with four-pass design provides high heat transfer, controlled combustion and low stack temperatures. High velocity combustion gases scrub the tube surfaces clean. Multinozzle pressure-atomizing oil burner has automatic two-stage ignition. Operation is on No. 2 light oil. Multiple jet gas burner operates on natural, manufactured or mixed gases. Made by **Cleaver-Brooks Co.**, Dept. NED, 326 E. Keefe Ave., Milwaukee 12, Wis.

For more details circle NED-382 H7 on enclosed inquiry slip

LOW COST VIBRATORS GUARANTEE STEADY MATERIAL FLOW WITHOUT BIN DAMAGE.

Powerful hammer-like blows of Cleveland Air Vibrators prevent arching and plugging in bins, hoppers and chutes.

RC electric vibrators are silent. Built on the rotating weight principle, they are no noisier than an electric motor.

Portable LSRR vibrators have male wedge-type mounting brackets which fit the female bracket on covered hopper railroad cars. We will be happy to furnish you a catalog of our complete vibrator line.

Air or Electric
Silent or Standard
Portable or Permanent

THE CLEVELAND VIBRATOR CO.
2744 Clinton Avenue — Cleveland 13, Ohio.

For more details circle NED-383 H7 on enclosed inquiry slip

For Faster, Better Soldering

Use Rubyfluid

RUBYFLUID'S better soldering flux—liquid or paste—assures you of strong, neat unions, quickly and easily. RUBYFLUID'S fast acting formula wets out freely . . . is free from objectionable and harmful fumes . . . is economical to use.

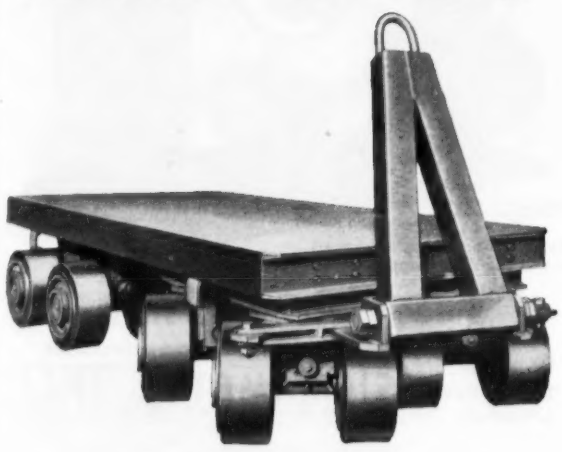
For stainless steel soldering, use RUBY'S Special Stainless Steel flux . . . designed specifically for this application . . . requires no extra heat, no extra equipment, will not corrode or discolor metal.

RUBY CHEMICAL CO.
72 S. McDowell Street Columbus 8, Ohio

Rubyfluid

For more details circle NED-384 H7 on enclosed inquiry slip

Handle heavy loads safely



Phillips
Heavy Duty Trailers

Phillips heavy-duty trailers are designed to safely and economically haul hot metal, ingots, slabs, plate, coils, bar stock, pipe, scrap and other products requiring in-plant handling.

Built in load-handling capacities from 6000 to 250,000 lbs., the Phillips trailers feature such advantages as front or front and rear axle fifth wheels for better steering, articulated axles, synchronized steering, Timken wheel bearings, solid or pneumatic tires, and 4, 8, or 16-wheel models.

They can be used singly or in tandem, the length of trains being limited only by the tow tractor. For good load stability, good roadability, safety, peak operating performance, and low initial cost with a minimum of maintenance, specify Phillips trailers.

SALEM-BROSIUS, INC.
16 Arch Street • Carnegie, Pa.

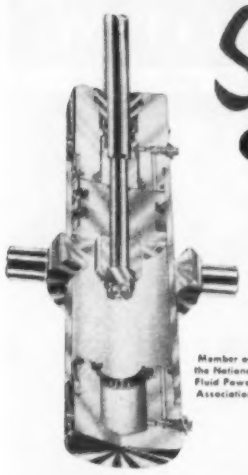
PHILLIPS MATERIALS-HANDLING EQUIPMENT

Manufacturers Since 1863

For more details circle NED-385 H7 on enclosed inquiry slip

all the **EXTRAS** are standard with

T-J **Spacemaker CYLINDERS**



Member of the National Fluid Power Association

- **NEW** *exclusive* ingenious cushion designs . . . Super Cushion Flexible Seals for Air . . . New Self-Aligning Master Cushion for Oil.
- **STRONGER** than outmoded tie rod design, proven through actual tests. No tie rods to stretch.
- **SOLID STEEL HEADS** throughout the full line.
- **COMPACT DESIGN** eliminates tie rods, increasing the strength and reducing mounting space required, providing extra room for adjacent equipment.
- **HARD CHROME PLATED** body bores and piston rods . . . assure you of long trouble-free service. (Standard at no extra cost.)
- **METALLIC ROD SCRAPER,** not just a wiper, actually removes foreign matter from the rod.
- **PILOTED PACKING GLAND** with extra long bearing. Additional strength and support to the piston rod.
- **OIL** pressure to 750 p.s.i. AIR to 200 p.s.i.

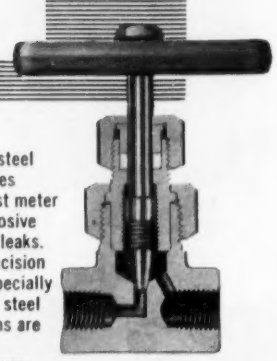
DELIVERY OFF THE SHELF!

NEW LITERATURE—Send today for new Catalog SM56 with complete engineering details on Spacemaker line. Write The Tomkins-Johnson Co., Jackson, Mich.

T-J **TOMKINS-JOHNSON**
RIVITORS . AIR AND HYDRAULIC CYLINDERS . CUTTERS . CLINCHERS

▲ For more details circle **NED-386 H7** on enclosed inquiry slip ▲

AMERICAN® needle valves



Teflon-packed, forged steel American® Needle Valves stand up in the toughest meter manifold jobs and other corrosive field services without gland leaks. Stainless or carbon steel precision machined valve bodies are specially suited for welding. Stainless steel centerless-ground valve stems are designed so that the valves can be repacked under pressure.

Standard valves design rated for pressures to 5,000 psi at 70°F. For pressure to 10,000 psi, upon request, valves are hydrostatically tested and individually inspected. Valves are furnished with graphite-impregnated asbestos packing for temperatures above 450°F.

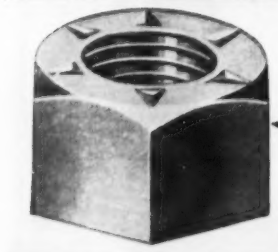
Angle or straight patterns — screwed or union bonnets.

AMERICAN METER COMPANY INCORPORATED ESTABLISHED 1836

Executive Offices: Philadelphia 16, Penna. Sales Offices in Principal Cities

▲ For more details circle **NED-387 H7** on enclosed inquiry slip ▲

SPECIFY GRIPCO LOCK NUTS



to resist stress, wear and vibration

They increase product durability at low initial cost

Simple one piece design — no inserts — no outside devices. Nothing complicated — the Gripco locking action is within the nut itself, yet you get low initial cost and low application cost with increased customer satisfaction. Speed production and lower manufacturing costs on your products now.

Send for samples and full particulars.

Gripco Products Include:

Gripco Lock Nuts • New Gripco "Clinch Nuts" Gripco Hi-Nuts • Gripco Pilot-Projection and Countersunk Weld Nuts

all with or without the famous Gripco positive locking feature. Also Standard Semi-Finish Nuts.

GRIP NUT COMPANY
106 Maple Ave. • South Whitley, Ind.

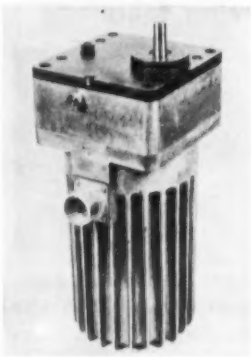
▲ For more details circle **NED-388 H7** on enclosed inquiry slip ▲

DIAL INDICATOR
reads in either direction

Clear - vision dial of the Pearson finger type dial indicator is graduated in thousandths to 0.050-in. and has a range of 0.075-in. It will read in either direction, will repeat within 0.0001-in. and will track without appreciable lag, making it suitable for aligning holes on machines, truing and straightening. Gage has a long contact point and nonsticking movement. A 360-degree universal swivel joint provides support in any position convenient to the work. Made by **M & G Instrument Co.,** Dept. NED, 12940 Saticoy St., North Hollywood, Calif.

▲ For more details circle **NED-389 H7** on enclosed inquiry slip ▲

GEARHEAD MOTOR
conforms to military requirements



Designed for 220-v three-phase 60-cycle ac, this oil-filled two-speed gearhead motor is rated 1/10-hp at 250 rpm and 84 rpm. It is suited for intermittent duty at higher speed and continuous duty at lower speed. Conforming to military specifications for shock resistance, it is totally enclosed and filled with GE Versalube silicone fluid for cooling. Electric brake stops rotation in 2/10-second. Made by **Western Gear Corp.,** Box 182A, Lynwood, Calif.

▲ For more details circle **NED-390 H7** on enclosed inquiry slip ▲

ELECTRIC FORK TRUCK
maneuverable 2000-lb capacity unit

Ten-degree forward and backward tilt make the model FT-20 electric fork truck useful for loading side - loaded pallet body trucks. Overall length, without forks, is 66½ in., and turning radius is 68 in. Maximum travel speed with load is 5.2 mph. Truck features self-adjusting hydraulic brakes, independent seat-operated parking brake and dynamic braking. Inching control is standard and lift height is 130 in. Made by **Baker-Raulang Co.,** 1245 W. 80th St., Cleveland 2, O.

▲ For more details circle **NED-391 H7** on enclosed inquiry slip ▲

CESCO...RIGHT—BEFORE YOUR EYES!

***NEW!* Flexible Plastic Goggles**

MEET WIDE RANGE OF INDUSTRIAL APPLICATIONS

New CESCO No. 565 Flexible Plastic Goggles

• Extremely lightweight and durable—molded from soft vinyl material—these #565 CESCO Flexible Plastic Goggles protect workers from dust, splashing liquids and moderate impact from any direction.

Comfortable to wear • They are perfectly contoured and fit snugly all around. Small perforations, angled away from the eyes, give adequate ventilation.

Give complete protection • They leave no open spaces. Fit perfectly over most personal glasses.

Permit full view • Wide window lenses are curved rather than flat to allow best vision.

Available in two styles • No. 565C (with clear plastic lens) or No. 565G (with green plastic lens).

ASK your CESCO Safety Equipment Distributor to show you this new goggle and the many other goggles in the complete CESCO line

CHICAGO EYE SHIELD COMPANY
2715 West Roscoe Street
Chicago 18, Illinois

CESCO FOR SAFETY

▲ For more details circle **NED-392 H7** on enclosed inquiry slip ▲

QUICK! CALL THE DELUXE DEALER WE HAVE A SHELVING PROBLEM

If you are troubled with sagging shelves, insufficient storage space, poor layout, call your local Deluxe dealer. He will engineer flexible, efficient shelving racks of Deluxe steel shelving—the sturdiest and best-designed shelving made.

These features mean lowest cost installation for you

- Rigid, fast erecting bin-type uprights
- Boltless, adjustable shelf brackets
- Snap-in dividers for quick flexibility
- Factory-reinforced shelves
- Coped shelf corners for more capacity

Call your local dealer or write for new "Shelving Reference Manual"

DELUXE

DELUXE METAL FURNITURE CO. • WARREN, PA.
A Division of Royal Metal Manufacturing Co.

▲ For more details circle **NED-393 H7** on enclosed inquiry slip ▲

How to tell New MYSTIK KYLON® from cellophane tape

Side by side it's almost impossible to tell Kylon—the new miracle plastic film tape—from cellophane. Both are crystal clear, and look exactly alike.

A short while under water, however, quickly reveals their true identity. Cellophane tape (a) loses tack and comes loose. But Kylon (b) stays stuck, because it's waterproof and moisture-proof. Kylon is best as a vapor barrier—keeps moisture in, keeps moisture out—best for every use.

KYLON®...
the new name for transparent tape

Resistance to water and moisture is just one of Kylon's 5 important advantages over cellophane. Kylon has greater packaging strength with 9 times the tear strength of cellophane. It's ageproof. It has superior holding power and comformability. It's best for printing. Yet it costs no more than cellophane. Make the comparison yourself. Mail coupon today for free sample.

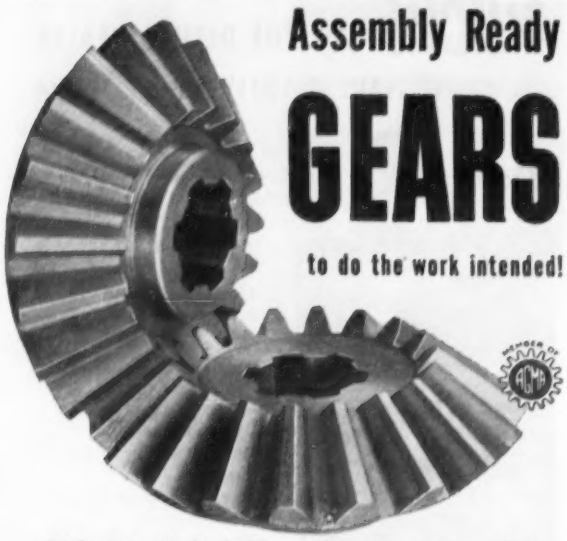
MYSTIK INDUSTRIAL TAPES

MT NED-87 **MYSTIK ADHESIVE PRODUCTS, Inc.**
2635 North Kildare Avenue, Chicago 39, Illinois

Please send sample and full information about new Mystik Kylon . . . successor to cellophane tape.

Name
Position
Company
Address
City Zone State

▲ For more details circle **NED-394 H7** on enclosed inquiry slip ▲



Assembly Ready

GEARS

to do the work intended!

Right from the beginning . . . slamming starts . . . shock loads . . . all are taken in stride because IG gears are delivered Assembly Ready . . . ready to go to work without pre-fitting or breaking in. All this is made possible because tolerances are held closer at Industrial Gear. Let IG become your one-source-of-supply Gear Department.

Write for complete, FREE "Gear Packet" showing Industrial Cut Gear products, applications, and services.

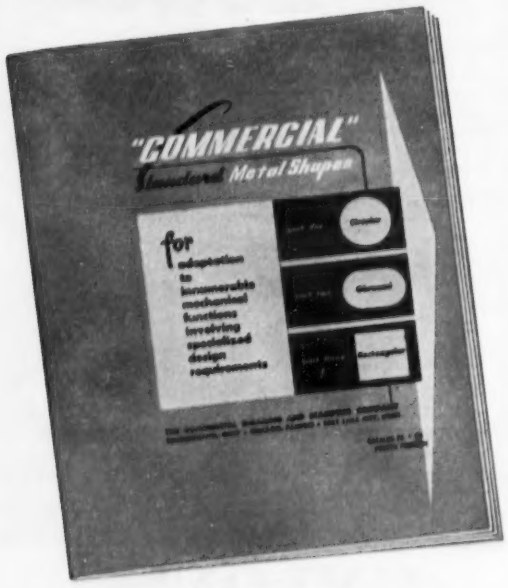
INDUSTRIAL GEAR MFG. CO.

4521 W. Van Buren St. • Chicago 24, Ill.

For more details circle NED-395 H7 on enclosed inquiry slip

HOW TO AVOID TOOL & DIE COSTS!

Hundreds of standard metal shapes offered from Commercial's "Die-Bank"



FREE CATALOG INCLUDES COMPLETE SPECS & DRAWINGS

For greater uniformity and accuracy all shapes are produced by cold forming workable metal in Commercial's dies made up from over 2,315 basic die components. Commercial also offers facilities for drilling, boring, machine trimming, burning and welding.

Custom Stampings Available

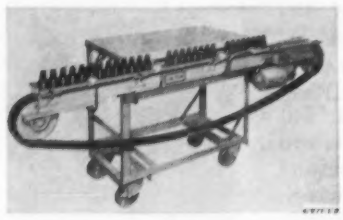
Complete engineering and design assistance, modern presses with capacities up to 2000 tons, plus our own completely integrated tool and die making service, are geared to economically produce large or small run, medium and heavy stampings to meet your exact requirements.

COMMERCIAL shearing and stamping

Youngstown 1, Ohio

For more details circle NED-396 H7 on enclosed inquiry slip

CONTAINER CONVEYOR
feeds bottles or cans to filler



Installed on front of pedestal or base model fillers or supplied with pedestal or roller stand (illustrated), this No. 3 conveyor delivers bottles, jars or cans to single or multiple liquid fillers. This 3-in. plain surface, single chain unit has nylon, steel or stainless steel flights, as required. Conveyor chain is driven by sprockets on 6-ft centers and a 1/6-hp gear motor at speeds adjustable up to 80 fpm by changing sprockets. An air-operated escapement attachment, controlled by a solenoid type master valve, can be supplied to coordinated conveyor and filling machine cycles. Made by **Arthur Colton Co.**, 3400-A E. Lafayette Ave., Detroit 7, Mich.

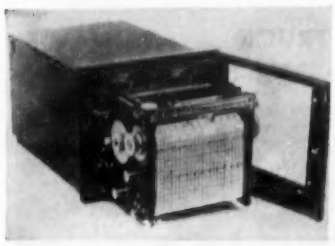
For more details circle NED-397 H7 on enclosed inquiry slip

ANGLE ATTACHMENTS
for air-driven fastening tools

Production fastening in close quarters and hard-to-reach areas is possible with angle attachments for line of Keller Tool air drivers. Attachments are heavy and light duty angle screw drivers and nut setters. Tools are powered by the Keller No. 2 air motor. Made by **Gardner-Denver Co.**, 1350 Front St., Quincy, Ill.

For more details circle NED-398 H7 on enclosed inquiry slip

RECORDING POTENTIOMETER
miniature instrument has two pens

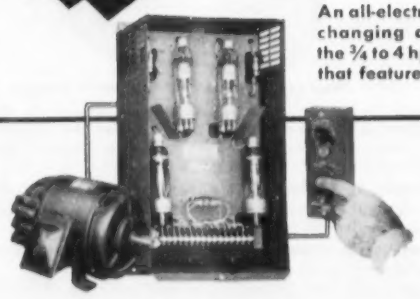


Two continuous records are produced by this recording potentiometer which has two pens that write margin-to-margin on a single 5-in. strip chart. Recorder has one front-set limit switch and three back-set limit switches on each pen. Amplifiers are transistorized. Each pen is accurate within 0.5-per cent and sensitive to 0.14-per cent of scale span. Optional features are transmitting slidewires, quick-change or manual-change gears for three-speed chart drive, selsyn or synchronous motor chart drive, automatic reference junction compensation, table or panel mounting and margin marker pens. Made by **Westronics, Inc.**, Dept. 12, 3605 McCart St., Ft. Worth 10, Tex.

For more details circle NED-399 H7 on enclosed inquiry slip

RELIANCE V★S DRIVE Jr.

An all-electric speed changing drive, in the ¾ to 4 hp. range, that features:



- 30 to 1 Speed Range
- Finger Tip Control
- Unlimited Speed Changes
- All Electric—from A-c. Circuits
- Low Cost

Write for Bulletin D-2102. D-1630-A

RELIANCE ELECTRIC AND ENGINEERING COMPANY

DEPT. 247A CLEVELAND 17, OHIO • CANADIAN DIVISION: WELLAND, ONTARIO

Sales Offices and Distributors in Principal Cities

For more details circle NED-400 H7 on enclosed inquiry slip

Gary WELDED GRATING

TAILOR MADE INSTALLATIONS

- Cost Less
- Look Better
- Give Better Service . . .

Eliminate expensive field alterations, piecing together and wasted material and labor by specifying Gary Welded Grating. Designed for specific loads and deflections, Gary grating is as easy to specify as it is to install. Gives maximum ventilation and illumination and long-maintenance-free service. Write for full information . . . ask for Bulletin N-87.

ROCKWELL SPRING & AXLE CO.
GARY GRATING DIVISION
4017 EAST SEVENTH AVE., GARY, INDIANA

For more details circle NED-401 H7 on enclosed inquiry slip

What's new at Towmotor?

The industry's most significant advances in fork lift truck design and performance are shown in Towmotor's Bulletin SP23. Write for copy describing new features like these.

- Fatigue-Free Adjustable Seating
- Motion-Saving "Centralized Control"
- Maximum Free Lift that tops all
- No-Loss Hydraulic Lift Action
- Power Steering that saves 80% of driving effort

TOWMOTOR THE ONE-MAN-GANG

TOWMOTOR CORPORATION
Cleveland 10, Ohio

For more details circle NED-402 H7 on enclosed inquiry slip

MAKE YOUR OWN CRANE...

...at a NEW LOW COST!

Handle loads up to 2000 lbs., SAFELY,

easily . . . Buy crane beam locally — we furnish the rest . . . A pair of self-aligning, ball bearing Flexo-Crane trucks cost only . . . . . $119.00 Simple instructions come with shipment.

•

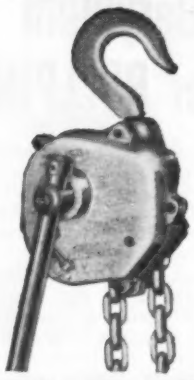
Complete Flexo-Crane, with hoist and accessories, is also economically priced. To get full details, ask for —

BULLETIN F-114

The Abell-Howe Line includes a wide range of overhead cranes monorails, hoists and accessories.

ABELL-HOWE COMPANY 7747 VAN BUREN ST. FOREST PARK, ILL.

For more details circle NED-403 H7 on enclosed inquiry slip



Light-Weight Aluminum Castings

make the Coffing Aluminum Super Power the lightest hoist in its class

Coffing Super Power hoists are available with aluminum castings which reduce their weight without sacrificing strength. Both 1½ and 3 ton models are more than 20% lighter than any other hoists in their class.

Super Powers, which also are available in malleable iron in capacities from 1½ to 5 tons, have sealed-in lubrication for moving parts and require a minimum of maintenance. Overload testing, "Safety Valve" handles, and constant load-locking ratchet-and-pawl assure safe operation. For complete details, consult your Coffing distributor or write to us for Bulletin L-3. **Coffing Hoist Division, Duff-Norton Company, 803 Walter Street, Danville, Ill.**

For more details circle **NED-404 H7** on enclosed inquiry slip

3A threads: what they are; how to gage them—new SPS booklet tells all

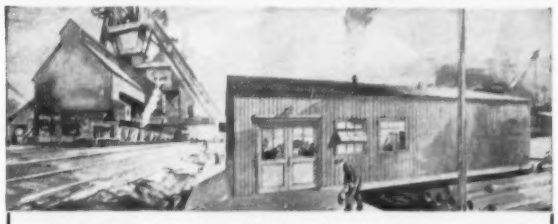
Threads made to Class 3A fit are the most precise in general use in industry. But you do not always get the 3A precision you specify. Because of many different gaging techniques that yield varying results, screws with threads well outside the Class 3A tolerance limits often pass inspection.

SPS has prepared a new booklet on this subject. It explains clearly what Class 3A threads are and the pros and cons involved in the widely varying gaging techniques in use today. It reviews the gaging of high and low limits of 3A threads, sampling techniques, and even the methods of gaging gages. Write for your copy today.

All standard UNBRAKO socket screw products fall within specified tolerance limits *no matter what method is used to gage them.* Leading industrial distributors carry complete stocks. Unbrako Socket Screw Division, STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

STANDARD PRESSED STEEL CO.
UNBRAKO SOCKET SCREW DIVISION SPS
JENKINTOWN PENNSYLVANIA

For more details circle **NED-405 H7** on enclosed inquiry slip



New Truscon Steel "Budget Buildings" Offer Top Utility at Low, Low Cost

Here's the latest design by the pioneer of prefabricated steel buildings. Now available from "off-the-shelf" stocks of pre-engineered materials. Shipped to your site as a package—all windows, doors, roofing, siding, hardware, included. Engineered for fast on-site erection. Widths 32 to 48 feet (in 4'0" increments)...heights 12 and 14 feet... lengths as long as you want them. Truscon "Budget Buildings" are fire-resistant, movable, styled for community acceptance. Write for latest bulletin.

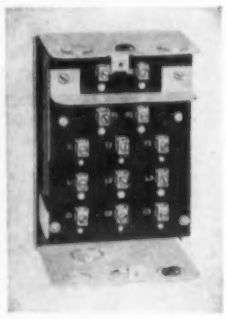
TRUSCON STEEL DIVISION
REPUBLIC STEEL
1096 Albert Street, Youngstown 1, Ohio

TRUSCON MARK OF MERIT PRODUCTS

C-4117-AR

For more details circle **NED-406 H7** on enclosed inquiry slip

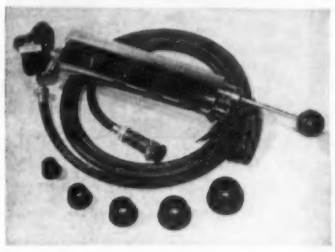
CONTACTORS
one, two and three-pole types



Normally - open, normally-closed or double-throw contact action or combinations of these actions may be specified in line of contactors and transformer-contactors with one, two and three-pole construction. Low voltage control circuits on all models are suitable for Class II wiring. Electrical ratings per pole are 16 amp running, 96 amp locked rotor, 115 v ac; 12 amp running, 72 amp locked rotor, 230 v ac. Higher ratings can be ordered. Combination transformer and magnet and antibind armature suspension are featured. Made by **Mairco, Inc.**, Div. A, 1026 N. Main St., Goshen, Ind.

For more details circle **NED-407 H7** on enclosed inquiry slip

HYDRAULIC DRAIN CLEANER
expansion plugs fit 1½ 6-in. lines



Expansion plugs of cast aluminum are available in 1½ to 6-in. sizes for use with the Hydraulic Water Ram in clearing blocked drains, sewers or plumbing fixtures. Plugs are used primarily in 4 to 6-in. floor drains and sewers to eliminate severe blockages. Drain cleaner, described in *NED*, Oct. '56, is applied to smaller drain or fixture openings with smaller drain adapter plugs, supplied as standard equipment. Ram applies a triggered charge of compressed air through a noncompressible column of water to dislodge obstructions in plumbing lines. Self-contained unit requires only connection to water line to operate. It is capable of removing a blockage in an 8-in. pipe 100 ft from point of ram application. Made by **Hydraulic Mfg. Co.**, Dept. NED, Kiel, Wis.

For more details circle **NED-408 H7** on enclosed inquiry slip

NUT-LOCK WASHER
preassembled as single unit

Steel, brass, aluminum and stainless steel Spring-Nuts are available in a range of standard sizes. The preassembled nut and helical spring lock washer has serrations on the locking surface. Application information and samples are offered by the manufacturer, **Jacobson Nut Mfg. Corp.**, Dept. N, Box 177, Kenilworth, N. J.

For more details circle **NED-409 H7** on enclosed inquiry slip

NOW! Lubricate those hard-to-reach places

The **EASY** Way ...by **SPRAY**

Penetrates the tightest bearings

Cabot's new 10 oz. spray can of Lubri-Tasgon makes it easier than ever to loosen gummed-up sludge, relieve and prevent recurrence of sticky valves, provide lasting lubrication for all bearing surfaces. Has 25% greater lubricating power than ordinary oils, sprays freely even at 40° below zero. Lubri-Tasgon also comes in standard 3 oz. cans, pints, quarts and gallons.

Try it. We'll pay shipping costs

SAMUEL CABOT INC.
832 Oliver Building, Boston 9, Mass.

Please send_____cans of Lubri-Tasgon Spray @ $1.50 each
I enclose check for $_____

For more details circle **NED-410 H7** on enclosed inquiry slip

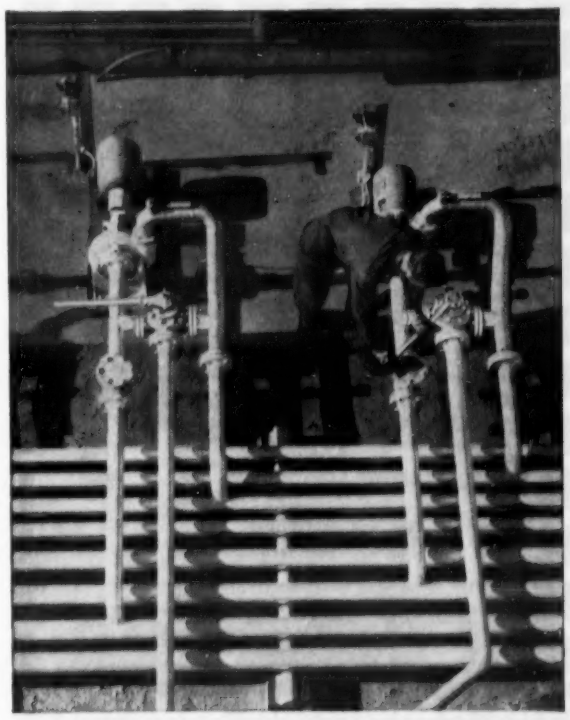
man putting down a sound investment!

This company has made a wise investment—one which will pay many dividends over a long period of time! The man above is dropping a Magliner magnesium dock board in place on the company's dock. This new Magliner will speed loading . . . get more out of power trucks and other loading equipment . . . keep costs down! Made of light, strong magnesium, it will protect men, loads and equipment against accidents and costly damage. It will also pay other big dividends! Magliners are low in initial cost—and because they provide dependable, long-life service with less maintenance they give you greater economy *ALL* ways! Find out today, how Magliner dock boards can cut costs in your operation. Write for Bulletin DB-204!

MagLiner MAGNESIUM DOCK BOARDS

MAGLINE INC. • P. O. BOX 98 • PINCONNING, MICHIGAN
Canadian Factory: Magline of Canada, Ltd., Renfrew, Ontario

For more details circle **NED-411 H7** on enclosed inquiry slip



3-WAY FLOW CONTROL
at the cost of only 1 valve!

One ROCKWELL-Nordstrom Multiport Valve Eliminates 3 or 4 Ordinary Valves

Imagine how complicated . . . and costly . . . the installation above would be if separate by-passes and valves were needed for each line. But with Rockwell-Nordstrom Multiport valves, these complex switching operations become simple, foolproof and economical. The drawings below (just three of many combinations), show why one Multiport can replace three or four ordinary valves.

In addition to original installation savings, Multiport valves *continue* to save you money because they're ruggedly built to stay efficient. *Pressurized lubricant* which forms a positive, leakproof seal, also prevents friction wear for longer life at lower cost.

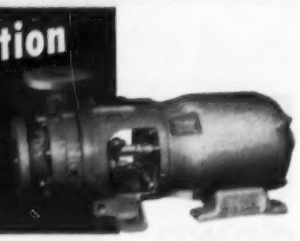
Rockwell-Nordstrom Multiport valves (and the *complete* line of Straightway valves) are available in semi-steel, steel, stainless steel, bronze and other corrosion resisting metals. Write for complete details: Rockwell Manufacturing Company, Pittsburgh 8, Pa. *Canadian Valve Licensee:* Peacock Brothers Limited.

ROCKWELL-Nordstrom VALVES

LUBRICANT SEALED FOR POSITIVE SHUT-OFF

For more details circle **NED-412 H7** on enclosed inquiry slip

when production depends on performance



...rely on the

Ingersoll-Rand MOTO-R PUMP

Ingersoll-Rand pumps are designed and built for maximum performance, efficiency and trouble-free operation. The I-R line is *complete*—available in many styles and sizes for any type of installation.

- COMPACT DESIGN—saves space
- OPERATES IN ANY POSITION—no special baseplate
- NO ALIGNMENT PROBLEM—motor is directly connected to pumping unit
- MODERN I-R FEATURES—maximum efficiency, low maintenance
- WIDE RANGE OF SIZES—¼ to 75 hp; 5 to 2800 gpm capacity

Get full details on these modern centrifugal pumps.

Ingersoll-Rand

9-489 11 Broadway, New York 4, N. Y.

For more details circle NED-413 H7 on enclosed inquiry slip

FASTER HOT STAMPING

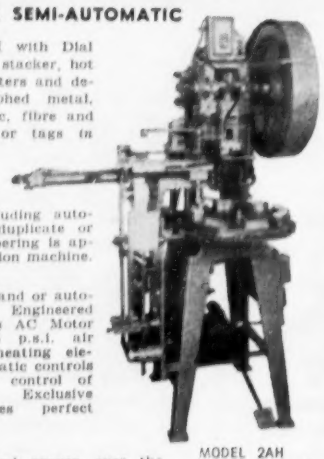
AUTOMATIC OR SEMI-AUTOMATIC

The Acromark 2AH with Dial Feed and automatic stacker, hot stamps numbers, letters and design onto lithographed metal, coated metal, plastic, fibre and paper name-plates or tags *in color*.

COLOR

Color markings including automatic consecutive, duplicate or other sequence numbering is applied with this precision machine.

Feeding can be by hand or automatic magazine. Engineered construction includes AC Motor drive, standard 75 p.s.i. air stacker, electrical heating elements with thermostatic controls and "Push-button" control of entire equipment. Exclusive compensator insures perfect markings.



MODEL 2AH Dial Feed and Stacker

Widely used and proven over the years. Write for Model 2AH literature and prices. Send drawings or samples if possible. Representatives in major industrial areas.

ACROMARK

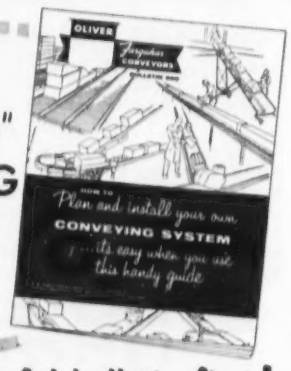
THE ACROMARK COMPANY

7-11 MORRELL ST., ELIZABETH, NEW JERSEY

"Original Marking Specialists"

For more details circle NED-414 H7 on enclosed inquiry slip

Now "install your own" CONVEYING SYSTEM...



but get this useful bulletin first!

Here's a "do-it-yourself" workbook that answers your questions about building money-saving power belt and gravity conveying systems.

Bulletin 500 gives details on standard Farquhar Conveyors and shows you how to use a "Check List" to get down in writing all the information you must have to properly plan your own systems. Then it takes these "Check List" facts and converts them into step-by-step procedures for selecting and installing the conveyors. The result is a simplified method that makes it easy to build a basic conveying system whether it involves two or twenty units.

Write, wire or phone for your free copy of Bulletin 500 today.

OLIVER Farquhar CONVEYORS

A. B. FARQUHAR DIVISION

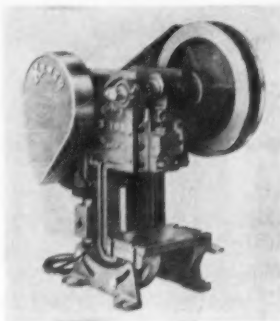
THE OLIVER CORPORATION
Conveyor Dept. G-04, York, Penna.
Factory Branch: 618 W. Elm St. Chicago, Ill.

POWER BELT AND GRAVITY CONVEYORS

Also makers of Farquhar Hydraulic Presses and Special Machinery

For more details circle NED-415 H7 on enclosed inquiry slip

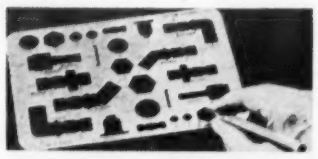
SLOW SPEED PRESS
inclinable model is rated 8 tons



Quiet operation and easily varied working speeds adapt this 8-ton punch press for hand feeding, deep drawing, continuous and accurate roll and dial feeding operations. Normal speed is 90 strokes per minute, with 50 to 200 stroke speeds obtainable by changing single pulley. Positive cog type belt drive and two flywheels assure smooth operation and ample power. Standard and deep throat models are available. Made by **Kenco Mfg. Co.**, Dept. NED, 5211 Telegraph Rd., Los Angeles 22, Calif.

For more details circle NED-416 H7 on enclosed inquiry slip

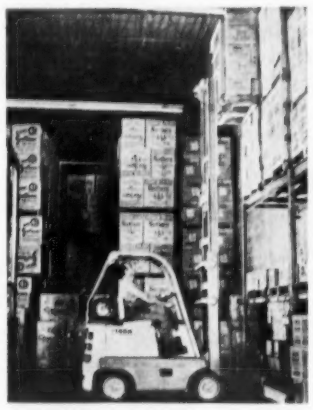
DRAFTING TEMPLATES
for flareless fluid fittings



Series of five drafting templates contains cutouts for MS type flareless fluid fittings for 3/16 and 5/16, ¼ and ⅜, ½, ⅝, and ¾-in. tube sizes. Templates are made of 0.025-in. vinyl plastic, ambercoated to minimize eyestrain. Corresponding MS part number is shown opposite each cutout. Elbows, unions, tees, plug, reducer, nuts, sleeve and boss are reproduced in each size. Made by **E. F. Twomey Co.**, Dept. NE, Box 15913, Los Angeles 15, Calif.

For more details circle NED-417 H7 on enclosed inquiry slip

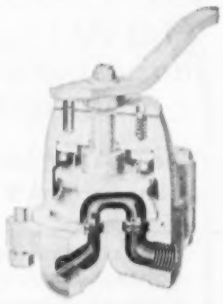
HIGH-STACKING FORK TRUCKS
three-section masts give low height



Three-section telescoping upright available on 3000, 4000 and 5000-lb capacity Clarklift fork trucks permits ceiling height stacking and retracts low enough to pass through boxcar doors. This triple lift upright is offered in four sizes giving fork lift heights of 126 to 216 in. with respective overall heights in lowered position of 65 and 96 in. Free lift is 15 to 23 in., depending upon the model. Rollers absorb radial and thrust loads to prevent sway. Made by **Clark Equipment Co.**, Industrial Truck Div., 1952 Arze St., Battle Creek, Mich.

For more details circle NED-418 H7 on enclosed inquiry slip

DO YOU **CONTROL** YOUR HI-PRESSURE CIRCUITS?



1. *Can you shut off flow tightly?*
2. *Can you throttle gradually?*
3. *Can you get full flow?*

1. Manual Shear-Seal valves (1500, 3000 and 6000 P.S.I.) are leakproof and stay leakproof for years of service with little or no maintenance; no internal port to port leakage in the detented positions and, of course, no external leakage. Sealing qualities actually improve with use, due to wear compensating lapping action of "Shear-Seals."

2. You get excellent throttling, smooth action to any degree of flow without fighting the fluid pressure.

3. Quick as a quarter turn of the handle you can open the full flow (or shut it off) with surge dampening action, because the round tubular passages have no spools or poppets obstructing flow.

BARKSDALE VALVES

5125 Alcoa Avenue, Los Angeles 58, California

Ask for bulletin 5-H, -A and -W.

For more details circle NED-419 H7 on enclosed inquiry slip

New Beryllium Copper ROLLPIN

Now . . . extend the proved advantages of Rollpin to a wide variety of applications where resistance to corrosion, good electrical properties and nonsparking or nonmagnetic characteristics are required.

Use it as you use carbon steel Rollpins—to replace taper pins, straight pins and set screws; to serve as a rivet, dowel, hinge pin or stop pin—to cut production costs by eliminating special machining, tapping, and the need for hole reaming or precision tolerances. Driven into a hole drilled to normal production standards, Rollpin locks securely in place, yet can be readily drifted out and reused whenever necessary. Beryllium Copper Rollpins are available from .062"-diameter to .250".

For all the information you need, write Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey, Dept. R36-853.

ROLLPIN TRADEMARK

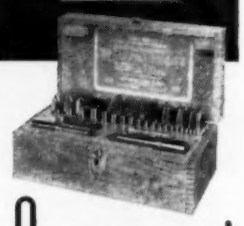
ESNA ELASTIC STOP NUT CORPORATION OF AMERICA

For more details circle NED-420 H7 on enclosed inquiry slip

AFTER THE HEAVIEST CUTS— DISENGAGES WITH A TWIST OF THE WRIST!

Continental Counterbores disengage with a *twist of the wrist*—even after the heaviest cuts. Anti-wedging action saves time, tools and nerves.

Choice of three sets for the needs of large and small toolrooms.



FREE ENGINEERING DATA

This catalog shows exploded phantom and cross sectional views of a Continental Counterbore. You can choose from a large selection of counterbore holders, cutters, countersinks, and sets.

57-52

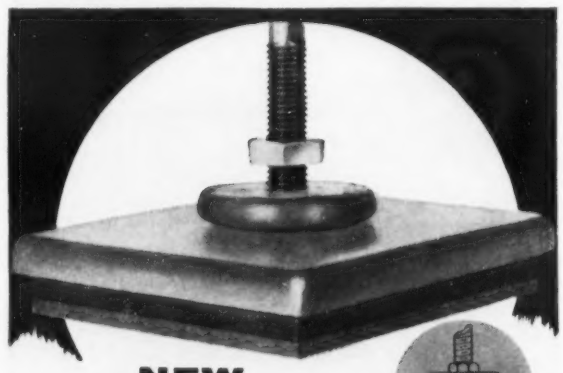
Continental TOOL WORKS

Division of EX-CELL-O CORPORATION

CTW

DETROIT 32, MICHIGAN

For more details circle NED-421 H7 on enclosed inquiry slip



NEW LEVEL-RITE Machinery Mounting

The new Level-Rite combines the features of Unisorb with the advantages of a rugged, easy-to-use device for precise leveling of machines. Machines are completely "mobilized." One unit required for each machine leg, with load ratings to 7500 lbs. per unit.

Exclusive Screw-Post Design . . . Machine legs mounted on special leveling screw and plate assembly, which rests in all-steel base plate. Machine is quickly and easily leveled by simply rotating the square top of the leveling screw, then securing lock nut. Machines stay level.

No bolts, lag screws or cement . . . Level-Rite eliminates all need for anchor bolts or screws. Designed so compression provides positive hold, no "walking" or creeping under the toughest side loads.

Superior Unisorb Vibration Dampener . . . Industry's most efficient isolator reduces transmitted vibration up to 85%. Unisorb will not deteriorate, is resilient, and is impervious to cutting fluids and cleaning compounds.

Send for New Data Sheet and Prices, today.

The name to remember is . . . the FELTERS CO.

UNISORB

224 SOUTH ST., BOSTON 11, MASS.
Manufacturers of Felt and Felt Products

For more details circle NED-422 H7 on enclosed inquiry slip

Cut Costs with Molded Plastics by Richardson

You can cut costs, increase profits, by replacing metal components with Richardson molded plastic parts. Molded plastic is strong, lightweight, corrosion resistant. Color is molded in. Pieces need little or no finishing.

Analyze the materials and assembly costs in your products. Keep in mind the fact that plastics are now being used for housings, washers, gears, valves, pump impellers, washing machine agitators, switches, light sockets, cameras, and thousands of other items. Each use represents savings in material, assembly, or unit costs.

For cost-cutting counsel, send a print of your product—or ask for Richardson engineering service. There's no obligation . . . and there may be profit for you.

Write to Dept. 20 for Richardson MOLDED CATALOG.

The RICHARDSON COMPANY

2798 Lake Street, Melrose Park, Ill. • Chicago Phone: Mansfield 6-8900

▲ For more details circle NED-423 H7 on enclosed inquiry slip ▲

BLACK LIGHT STOPS BURGLARS!

By using a beam of invisible 'black light,' Kidde's tamper-proof Photo-Electric Alarm provides complete burglar and intrusion protection up to a range of 900', indoors or out. If beam is broken, alarm sounds locally or at central station. Rugged, transistorized circuit draws only 6½ watts. Optional batteries keep system in operation if main power fails. Write Kidde for more details.

The words 'Kidde', 'Lux', 'Lux-O-Matic', 'Fyre-Freez' and the Kidde seal are trademarks of Walter Kidde & Company, Inc. and its associated companies.

Kidde

ULTRASONIC DIVISION

Walter Kidde & Company, Inc.

824 Main St., Belleville 9, N. J.

▲ For more details circle NED-424 H7 on enclosed inquiry slip ▲

DA PRODUCTS SINCE 1910

SPONGE RUBBER

for—

- **Pads**
- **Cushions**
- **Gaskets**
- **Mountings, etc.**

TELL US YOUR NEEDS. Durkee-Atwood offers prompt sampling service on *uniform cellular structure* sponge rubber. Available in three densities . . . soft and medium (3/32" to 1" thick) and firm 3/32" to ½" thick) . . . in standard 36" width.

TELL US YOUR SCHEDULE. Durkee-Atwood offers prompt shipping service to meet production requirements.

DOR-TITE

Sponge rubber stripping for solving countless problems. All sizes.

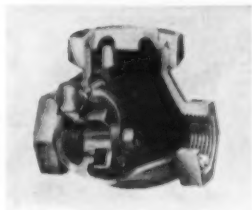
FREE SAMPLES—Write on your letterhead for samples of DOR-TITE and/or SPONGE RUBBER. Dept. NE-8.

DURKEE ATWOOD V-BELTS

DURKEE-ATWOOD CO. MINNEAPOLIS 13, MINN.

▲ For more details circle NED-425 H7 on enclosed inquiry slip ▲

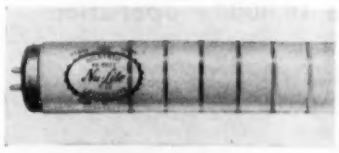
SWING CHECK VALVE has renewable composition disk



Renewable composition disk of the Fig. 0630 swing check valve can be replaced without removing the valve body from the line. Disk protects the valve seat from damage due to solid particles in the steam and from shocks or pulsating pressures. Medium-hard disk for liquid service and a steam disk are available. Full unobstructed flow is offered by the bronze valve, rated at 150 psi for steam, and 300 psi for cold water, oil or gas, in nonshock service. Sizes are ½ to 2 in. Made by **Fairbanks Co.**, Dept. 43, 395 Lafayette St., New York 3, N. Y.

▲ For more details circle NED-426 H7 on enclosed inquiry slip ▲

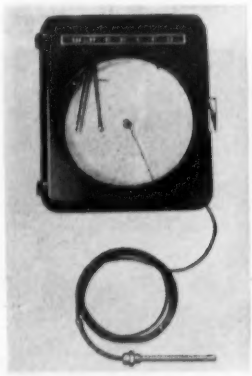
GLARE-FREE FLUORESCENT LAMP life is 2 years or 17,500 hours



Soft, pastel green light emitted by Niletone Louvre-Lite fluorescent lamp is reported to increase the eye's ability to distinguish fine detail as well as sharply reduce glare. Particularly suited for use in drafting rooms, machine shops and general offices and for quality control, inspection and precision work, lamps are offered on a free replacement basis for a burning life of 2 years or 17,500 hours, whichever expires first. Made by **Nu-Lite Corp.**, Dept. NED, 41 S. Sixth St., Newark, N. J.

▲ For more details circle NED-427 H7 on enclosed inquiry slip ▲

INDUSTRIAL THERMOMETERS for surface or flush mounting



Recorders, recorder-controllers, indicators and indicator-controllers are included in the 4000 series of thermometers. Features include 12-in. charts or 7½-in. scales, friction-free pens, temperature compensation and accurate mercury sensing elements. Available controller forms include two-position switching, two-position anticipatory time proportioning, multiposition, two position with mercury switch, position proportioning, stepless electric proportioning and automatic shut-off controls. Temperature range is −40 to 950° F. Made by **Barber-Colman Co.**, Wheelco Instruments Div., 1514 Rock St., Rockford, Ill.

▲ For more details circle NED-428 H7 on enclosed inquiry slip ▲

FIRE-SAFE

for Quick Grease and Oil Removal!

PROTECTOSEAL *Foot Treadle Operated* **WASH TANK**

Flammable cleaning solvent is exposed only when operator is using tank.

Self-Closing Hinged Cover — remains tightly closed when not in actual use to prevent fire, protect solvent from contamination and minimize evaporation loss.

Foot Controlled Cover—normal foot pressure on treadle opens cover to full width. Safety air-check cushions against accidental fall.

Hand Free—both hands are free to hold and clean part at convenient, waist-high level.

Permits washing larger production parts, paint masks, castings and assemblies. May be equipped with removable sediment tray.

PROTECT YOUR PLANT

Fill in coupon and attach to company letterhead.

West Coast Warehouse: Los Angeles, Calif.
In Canada: Safety Supply Co., Toronto

The Protectoseal Company, 1964 S. Western Ave., Chicago 8, Ill.
Send Descriptive catalog sheet and price list of Foot Treadle operated Wash Tank
☐ Also send "Guide to Selection and Use of Protectoseal Equipment for the Safe Storage, Handling and Use of Flammables."
Name_____ Title_____
Company_____
Address_____
City_____ Zone____ State____

▲ For more details circle NED-429 H7 on enclosed inquiry slip ▲

FOR WET OR DRY PICK-UP . . . IDEAL FOR BOILER CLEANOUT

Assemble your own vacuum cleaning outfit to handle those extra-dirty jobs! Here's the ideal combination . . . Kent DRUM-SEAL, any Kent Vacuum Head, any metal container up to 55-gal. drum size. Capacity limited only by size of container.

For normal wet pickup and cleaning up large areas of liquid . . . fast removal of dust, dirt, sawdust, metal chips, filings, and other small debris . . . especially suited for efficient boiler cleanouts.

WRITE TODAY FOR FULL DETAILS

KENT CO., INC.
449 Canal Street
ROME, N.Y.

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STA-KON®

SELF-INSULATED TERMINALS

Combine

- **Lowest installed cost**
- **Pressure-Connector Permanence**
- **Self-Insulated Safety!**

This complete line of self-insulated Sta-kon terminals gives you positive insurance against accidental contact by adjacent terminals. Easier-than-ever to install, they provide highly-conductive joints . . . large contact areas . . . tough, stable Nylon insulation . . . and a permanent vise-like grip on the conductor. Color-coded by size for instant identification. Three sizes of terminals will accommodate #22 to #10 AWG sizes . . . available in ring and fork tongues, as well as special styles.

NOW INSTALLED WITH THIS SIMPLE, INEXPENSIVE TOOL

The new, lightweight WT-152 installing tool means greater convenience and economy when you use self-insulated Sta-kon terminals. *Costs less than one quarter* as much as previous tools . . . installs all terminal sizes. Has wire-cutter, cushion-grip handles. No adjustments to make when switching sizes. One compression-nest accommodates wire sizes #22—#14. The other: #12 and #10.

Here's All You Need: Terminals Conveniently Boxed in Pocket-Size Packages ...Lightweight WT-152

Write for NEW Bulletin S-7 showing the complete line of Sta-Kon terminals and connectors in pocket-size packages.

Sold only under the T&B Plan of 100% Wholesaler Distribution

THE THOMAS & BETTS CO.
INCORPORATED
24 Butler Street • Elizabeth 1, New Jersey

THOMAS & BETTS, LTD.
Montreal, P.Q., Canada

MANUFACTURERS OF FINE ELECTRICAL FITTINGS SINCE 1898

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NEW DESIGN

Sahlin Replacement Jaws

- Smaller area jaw has greater gripping force; tough steel inserts are easily replaced.
- Heavy duty bore easily substituted for standard 2" bore—gives up to 40% more gripping force.
- All parts jig-milled to make them interchangeable; all fasteners tool crib items.
- New jaws weigh 8 - 10 lbs. less.
- Off-the-shelf Deliveries.
- Special jaws—special features available.

SEND FOR DESIGN DATA

Sahlin Engineering Co., Inc.
Birmingham, Michigan

For more details circle NED-432 H7 on enclosed inquiry slip

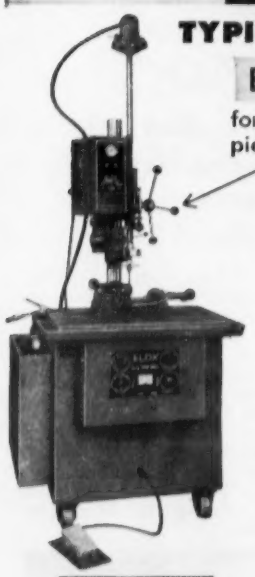
yours for the asking

a simple, economical way to salvage parts made defective by broken taps, drills, reamers or engineering changes

TYPICAL EQUIPMENT

Elox M-700 Electron Drill

for the plant with 10 or more pieces of scrap per day.



Elox M-200 Portable Electron Drill

for the plant with less than 5 parts per day.

Sample Job

This stainless steel valve body was valued at $45 when a #10/40 tap broke in one of the holes. Using a .080 copper electrode an Electron Drill removed the tap in 5 minutes!

Incidentally . . .
It took an operator 20 minutes to tap 4 base holes in this same valve.

When the operator saw how fast and easy broken taps could be removed, he reduced his machining time to 5 minutes per piece.

Elox Electron Drills are also used in many forms of die salvage . . . drilling bolt holes, tapered pin holes, coolant holes, lubricant holes . . . in the fully hardened state.

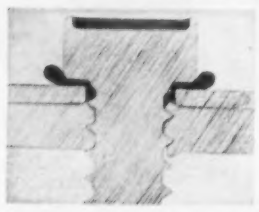
We believe we can save you time and money — Why not write

elox corporation of michigan *T. M. Reg.

1838 N. Stephenson H'wy., Royal Oak 3, Mich.

For more details circle NED-433 H7 on enclosed inquiry slip

FASTENER-SEAL
self-tapping screw has nylon washer



Waterproof, vibration dampening Nyltite Stap fastener-seal for use in electrical and electronic equipment consists of a self-conforming Zytel nylon washer preassembled to a standard P-K self-tapping screw. The washer compresses against the head and threads of the fastener as the screw is turned in, sealing the opening against moisture penetration. Cushioning feature protects porcelain and other finished surfaces. Translucent washer "flows" into the threads and any irregularities of the engagement hole. Samples of any of various head styles are available. Made by **General American Transportation Co.**, Parker-Kalon Div., 2 Peekay Dr., Clifton, N. J.

For more details circle NED-434 H7 on enclosed inquiry slip

RUNNING TIME LOG
records up to 10,000-hr operation

Accumulated time of operation up to 10,000 hours is shown on this hour log which has a 1/10-hour indicator and an operating signal. It provides a continuous recording of running time for all equipment operating on alternating current. Housed in a round metal case for panel mounting, the 2½-in. diameter by 2¼-in. deep instrument is dust and moistureproof. Square case is also offered. Price is $15.75. Made by **Engler Instrument Co.**, 270 Culver Ave., Jersey City 5, N. J.

For more details circle NED-435 H7 on enclosed inquiry slip

PORTABLE HYDRAULIC LIFT
manually operated, handles 1600 lb

Heavy loads are handled in limited aisle spaces by this 1600-lb capacity manually-operated hydraulic lift. This model L-157 has two swivel casters at rear and two 5-in. hard rubber wheels at front for maneuverability, even under full load. The 34 x 34-in. safety plate platform has a lifting height of 36 in. Hand actuated and controlled pump and cylinder are used. Made by **Crown Controls Co.**, 50 S. Washington St., New Bremen, O.

For more details circle NED-436 H7 on enclosed inquiry slip

it's *Cardinal*

MASONRY BLADES and SAWS for LOW-COST CUTTING of

Brick, Tile, Block, Concrete and Refractory and other Hard & Soft Masonry Materials

FOR BETTER MAINTENANCE—CARDINAL makes a variety of specifications in 6"-7"-8"-9"-10" break and wear resistant abrasive cutting blades for use on all standard makes of portable hand saws.

FOR PRODUCTION MASONRY CUTTING—CARDINAL makes both DIAMOND and NON-BRAK Abrasive masonry cutting blades in 12"-14"-16"-18" sizes—and offers the amazing CARDINAL MASONRY SAW with Micrometric adjustments and other exclusive features in 14" and 18" sizes—both superpowered, for faster, low-cost masonry cutting. For the better price . . . for the better masonry blade and saw value, write for the Cardinal story and price list.

Cardinal ENGINEERING CORPORATION
144 BURNSIDE ST., PHILA. 27, PA., U. S. A.
WORLD'S LARGEST MANUFACTURERS OF ABRASIVE AND DIAMOND MASONRY BLADES AND SAWS • DISTRIBUTORS IN PRINCIPAL CITIES

For more details circle NED-437 H7 on enclosed inquiry slip

"Been using Kester Solder for almost half a century, Tom. It's always fast and economical."

"When it comes to rigid alloy quality control, George, you have to hand it to Kester Solder."

"The Technical and Engineering Service at Kester is a great help in licking production problems, Bob."

SEND FOR "Solder . . . Its Fundamentals and Usage," the 78 page Kester textbook. It's free.

KESTER SOLDER

COMPANY 4249 Wrightwood Ave., Chicago 39, Ill.
Newark 5, N. J. • Brantford, Canada

For more details circle NED-438 H7 on enclosed inquiry slip

NEW HANDBOOK OF SMALL TOOLS AND ACCESSORIES

Here is our new, enlarged catalog with 1375 different items listed and described — more than 230 illustrations. Such essential tools as cutters, vises, arbors, rotary tables, chucks, collets, master copy type and other tool room and production line necessities are all within the covers of this 52-page book. Yours without obligation on letterhead request.

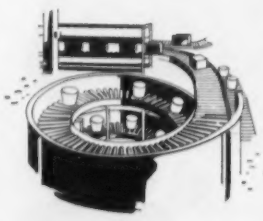
GORTON

GEORGE GORTON MACHINE CO.
1908 Racine St. Racine, Wis.

For more details circle NED-439 H7 on enclosed inquiry slip

Mathews SPIRAL CONVEYERS

ENGINEERED TO SERVE PRODUCTION



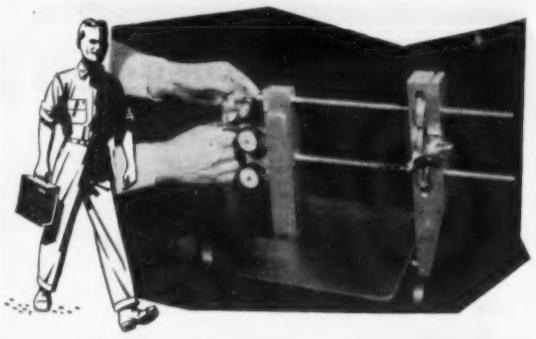
One of the many widely applied types of conveying equipment designed and built by Mathews Conveyer Company. The complete line of Mathews-designed, Mathews-built Conveyers includes the following:

CHAIN CONVEYERS • LIVE ROLLER CONVEYERS • WHEEL CONVEYERS
BELT CONVEYERS • TROLLEY CONVEYERS • ELEVATING CONVEYERS
PORTABLE CONVEYERS • SPECIAL CONVEYING MACHINERY

MATHEWS CONVEYER COMPANY
GENERAL OFFICES . . . . . ELLWOOD CITY, PENNSYLVANIA
PACIFIC COAST DIV. . MATHEWS CONVEYER COMPANY WEST COAST, SAN CARLOS, CALIFORNIA
CANADIAN DIVISION . . . . MATHEWS CONVEYER COMPANY, LTD., PORT HOPE, ONTARIO

MATHEWS
Fifty Years of Leadership in Mechanized Handling

For more details circle NED-440 H7 on enclosed inquiry slip



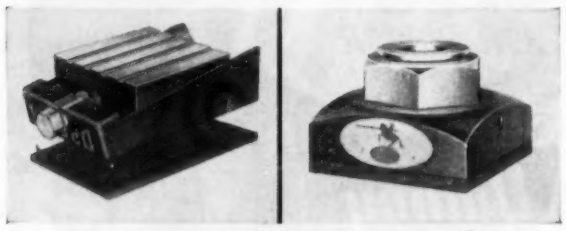
HARDNESS TESTER
compact and exact!

Inspectors simply carry this small, lightweight hardness tester to the work — instead of transporting heavy work pieces to a testing bench. Yet this Riehle portable hardness tester gives Rockwell readings as precise as any bench-mounted tester. Without obligation, let a Riehle representative prove this in your plant on certified calibrated specimens. Then try out on your own materials. Write Dept. NED-857.

Riehle TESTING MACHINES
A DIVISION OF
American Machine and Metals, Inc.
EAST MOLINE, ILLINOIS

For more details circle NED-441 H7 on enclosed inquiry slip

any new machine deserves an **EMPCO** *leveling jack*



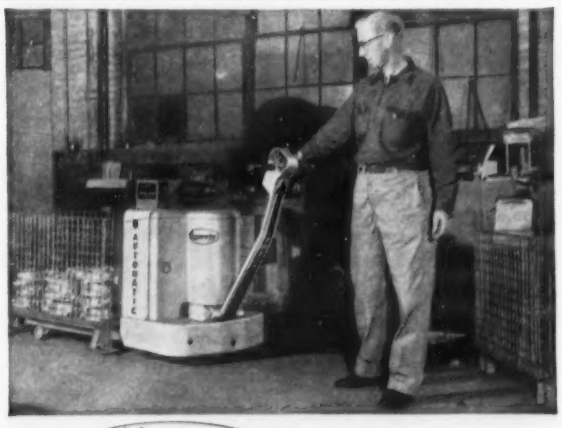
DEPENDABLE MACHINE SUPPORT WITH BUILT-IN PRECISION LEVELING

Installing new machines? *Set* them level, and *keep* them level with EMPCO Leveling Jacks. EMPCO jacks provide a solid, smoothly adjustable foundation for machine tools, large surface plates, automation lines, tool room and production equipment of all types. The result is better machine performance . . . higher precision . . . reduced downtime and maintenance. Where vibration problems exist, use VI-SORB Mounting Pads with your EMPCO Jacks. They control internal and transmitted vibration, reduce noise and prevent creepage (eliminate the need for anchor bolts in many cases). EMPCO Jacks are available in six styles, 25 models. VI-SORB Mounting Pads are cut to fit. Write us about your machine installation problems.

Send Today for Descriptive Bulletin No. 100—
The Enterprise Machine Parts Corporation
2727 Jerome Avenue • Detroit 12, Michigan

EMPCO LEVELING JACKS

For more details circle NED-442 H7 on enclosed inquiry slip



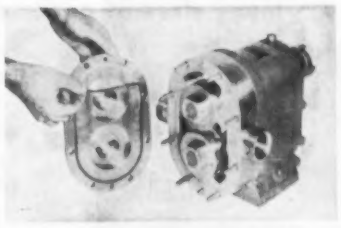
Automatic TRANSPORTER
LEADS ITS FIELD IN COMPACTNESS ...EFFICIENCY...ECONOMY

The above TRANSPORTER definitely improved handling of finished parts for Rockwell Mfg. Co., makers of valves and meters. Automatic TRANSPORTERS are available in many types...low and high lift platform and pallet models...forks, straddle and retractable mast type stackers.. tractors. These short compact trucks combine all the advantages of electric power with many operating advantages exclusive with Automatic...perform all functions of standard rider-type trucks yet cost less. Write for information including lease or purchase plans.

AUTOMATIC TRANSPORTATION COMPANY
Division of The Yale & Towne Manufacturing Company
Dept. M-7, 61 West 87th Street, Chicago 20, Illinois
WORLD'S LARGEST EXCLUSIVE BUILDER OF ELECTRIC-DRIVEN INDUSTRIAL TRUCKS

For more details circle NED-443 H7 on enclosed inquiry slip

PUMPS
have reusable rubber head gaskets



Maintenance costs and cleaning time on Waukesha positive displacement pumps for sanitary and corrosion resistant service are minimized by use of a reusable rubber pump head gasket. Oval ring type gasket fits in a machined groove in the pump head to provide a good vacuum and pressure seal on all sizes from 1500 to 50,000 lb per hour capacities. Various pump materials withstand normal to high temperatures and corrosive liquids. Made by **Waukesha Foundry Co.,** Dept. NE, Waukesha, Wis.

For more details circle NED-444 H7 on enclosed inquiry slip

GROUND DETECTOR
checks 0 to 2300-v circuits

Testing of ungrounded and modified grounded circuits from 0 to 2300 v while they are "hot" and equipment is operating is possible with the Allen ground detector. A portable generator impresses a pulsating signal of line voltage on the grounded phase conductor. Signal is followed visually with a hand-held signal receiver to the ground fault where the meter ceases to pulsate. Test signal current of up to 22 amp can clear high resistance or arcing faults, or make them solid and easy to locate. Made by **Excel Electric Service Co.,** Dept. NED, 2113 S. Western Ave., Chicago 8, Ill.

For more details circle NED-445 H7 on enclosed inquiry slip

EXTENSION LIGHT
grounded for worker protection

Equipped with UL-approved three-wire cord, No. 725-RG water-tight extension light has grounding plug and grounded lamp guard to insure safety in use. Neoprene or rubber jacket is optional, as are full length reflector guards, plain guards, or open end types. Made by **Ericson Mfg. Co.,** 1660 Hayden Ave., Cleveland 12, O.

For more details circle NED-446 H7 on enclosed inquiry slip

New Low-Cost Ways to **SAVE YOUR PUMPS**

FILTROS
"Flo-Clear" LIQUID FILTERS

The complete line of filters for water and many other liquids. New Model E (top left), for "in-the-line" use, may be installed anywhere most convenient. 3 other models are for use at end of supply line—in stream, pool, lake, tanks or solution vats.

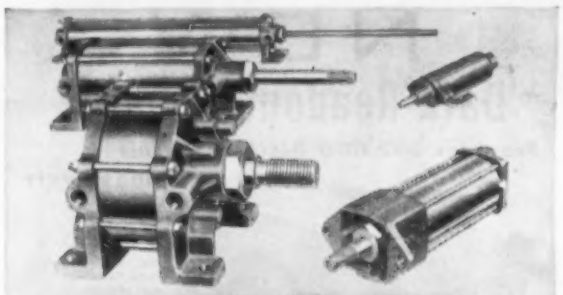
In addition to uses with liquids, the "Flo-Clear" filter will remove sediment, oil, moisture and suspended impurities in compressed air and gas lines. Write for free literature.

We can also help you with other filtering problems, with either one of our many standard products, or a new one designed and built to your individual specifications. Write us today.

ENGINEERING, DESIGN Service
FILTROS also Produces Porous Ceramic Media for:
AERATION, FILTRATION, DIFFUSION, ELECTROLYSIS, GAS ABSORPTION, CATALYST SUPPORTS, AIR CONVEYOR SYSTEMS.
Consult us about your Needs.

FILTROS INC.
610 West Commercial St.
East Rochester, N.Y.
Manufacturers of Porous Ceramics for Industry since 1913

For more details circle NED-447 H7 on enclosed inquiry slip



STRAIGHT-LINE POWER to fit your specs—

Schrader *Air Cylinders*

Wherever you require straight-line force, you'll find there's a compact Schrader Cylinder that will deliver it economically . . . dependably. You can eliminate manual operations in thousands of applications—and at the same time speed production and improve safety.

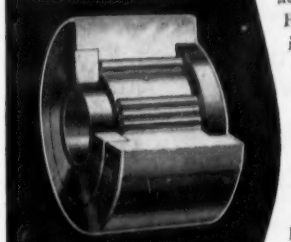
If you design equipment, consider Schrader Air Cylinders' superlative ability to deliver controlled power exactly where and when you need it.

There's a cylinder to fit every application. Push, pull, reciprocating, and clamping designs . . . with or without cushioned stroke . . . and in a wide range of sizes, stroke lengths, and mountings. Power, speed and timing are easily adjustable. Write for free Schrader catalog.

A. SCHRADER'S SON
Division of SCOVILL
454 Vanderbilt Avenue, Brooklyn 38, N. Y.

For more details circle NED-448 H7 on enclosed inquiry slip

McGILL® yoke mounted for cam action



or use as guide and support rollers

CAMROL TRADE MARK
CYR BEARINGS

This CYR series cam follower is especially built to use the full advantage of CAMROL Cam Followers in a yoke mounting. An inner race replaces the stud to permit mounting in a yoke or on a shaft when desirable. Both this CYR series and the standard CF series cam followers offer design advantages that provide shock load resistance, precision accuracy, simplified lubrication and longer bearing life in any automatic machinery. Roller diameter sizes range from ¾" to 4".

Write for helpful bearing handbook No. H-54-B

McGILL® *precision needle bearings*
McGILL MANUFACTURING CO., INC.
101 N. LAFAYETTE STREET VALPARAISO, INDIANA

For more details circle NED-449 H7 on enclosed inquiry slip

GENESEE Low Pressure Pumping Unit . . . . . .

This is a new heavier duty motor-pump combination. Definitely the answer to high-cost hydraulics. It can be used for (1) accurate control of machine motions and pressures; (2) converting existing air equipment to hydraulic; (3) pressure testing devices or wherever linear or rotary motions are required.

Its initial pumping unit cost is approximately half that of conventional high-pressure systems.

Five new models are available from stock, complete with motor, adjustable relief valve, pressure gage, oil level gage and piped return. They handle from 4 to 9 gal. per min.; HP ranges from ⅛ to 1.

GENESEE MACHINE BUILDERS, INC.
1731 HUDSON AVE., ROCHESTER 21, N. Y.

For more details circle NED-450 H7 on enclosed inquiry slip

NEW
Data-Readout Counter

Provides 100,000 Distinct Circuit Arrangements

Electrically actuated Data-Readout Counter with electric reset. Form B-1538 for 110V AC/DC.

Veeder-Root's new series of Data-Readout Counters combines visual indication with electrical readout for remote indication, recording, and controlling applications. *Electrically* or *mechanically* driven and provided with *manual* or *electric* reset, these counters present a positive display of accumulated totals and automatically create specific control circuit contact closures for each number visually displayed. Each instrument, with its five figure capacity, provides 100,000 distinct circuit arrangements which lend themselves to the most exacting control and transmission requirements. The counters are compatible with standard data processing equipment and offer a wide variety of applications in the industrial control and data processing fields.

Veeder-Root Inc.
"THE NAME THAT COUNTS"

Hartford, Conn. • Greenville, S. C. • Chicago • New York • Los Angeles
San Francisco • Montreal • *Offices and Agents in Principal Cities*

▲ For more details circle **NED-452 H7** on enclosed inquiry slip ▲

. . . on USS Multigrip Floor Plate

USS Multigrip Floor Plate means *safe footing*, wherever it's used. Smooth, evenly-spaced risers give traction in any direction – even when the plates are wet. Because the risers are flat-topped, footing is comfortable, as well as safe.

Rolled from tough steel, Multigrip won't chip, crack, or splinter. And it will give years of service and protection. It's available in large plates, eliminating installation waste.

These are just a few of the reasons why it pays to specify Multigrip Steel Floor Plate for stairs, aisles, ramps, platforms, floor areas, or any other place where safe footing is imperative.

UNITED STATES STEEL CORPORATION, PITTSBURGH • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, CHICAGO
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

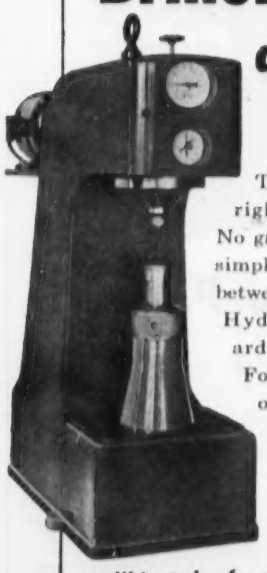
USS multigrip FLOOR PLATE

Sold by leading distributors from coast to coast

UNITED STATES STEEL

▲ For more details circle **NED-453 H7** on enclosed inquiry slip ▲

Brinell Testing
at Production Line Speeds



Test round or flat parts fast, right in the production line. No grinding necessary. Operator simply notes that needle reads between pre-set tolerance hands. Hydraulically applied standard Brinell loads are used. Foot control allows operator to test parts as quickly as he can move them through.

Long stroke models also available.

Write today for more information

DETROIT TESTING MACHINE COMPANY

9394 Grinnell Avenue, Detroit 13, Michigan

▲ For more details circle **NED-454 H7** on enclosed inquiry slip ▲

MIMEOGRAPH MACHINE
makes black or color copies on many sizes of paper or card stock

Several improvements have been incorporated in the new line of mimeograph machines. Lower in price than previous models, machines have a feed system that handles ream ends, previously printed or mimeographed copies, heavy cards or light weight paper with same ease as 20-lb paper. It can be reloaded while machine is running. Paper feed is readily adjusted to handle various sizes of card or paper stock.

Machines are available with either paste or fluid ink systems. Cylinders are closed, and re-inking is simple. By using fast-drying ink, offset and show-through are eliminated, and copy can be imprinted on both sides of sheet. Included in line are two electric and two hand operated models. Deluxe electric model 438, illustrated, and hand model 433 accommodate a full ream of paper and have a clock type counter that rings a bell and shuts off the feed when a preselected run is complete. Speed of electric model is variable from 90 to 180 copies per minute. Made by **A. B. Dick Co.**, Dept. NEW, 5700 W. Touhy Ave., Chicago 31, Ill.

▲ For more details circle **NED-455 H7** on enclosed inquiry slip ▲

WALL RECEPTACLE
for sanitary napkin disposal

Four built-in handles on the top cover of this line of Bennett Bilt sanitary napkin wall receptacles provide for convenient one-hand opening whether mounted on right or left walls or partitions. Each receptacle is supplied with 12 waterproof disposable waxed paper bag liners. Automatic emptying device permits the full liner to drop out the bottom without handling. Entire key-opened receptacle can be removed from its mounting plate for cleaning without loosening or removing fasteners. Permanent mounting is also available. Receptacle has baked-on white or green enamel finish. Made by **Bennett Mfg. Co.**, Dept. NED, Alden, N. Y.

▲ For more details circle **NED-456 H7** on enclosed inquiry slip ▲

You can eliminate problems of WORKPIECE INTERFERENCE with PINES 2-in-1 BENDER

Pivoting Head Design Permits L.H. and R.H. Operation

● This new, small, compact Pines Bender for production, experimental, or small lot bending work is actually two machines in one. It's designed with a pivoting head and top assembly and double ways which permit fast, efficient handling of bending operations in either clockwise or counter-clockwise direction. Changeovers can be made in two minutes. You save time and reduce work handling where multiple planes and odd workpiece shapes cause interference on ordinary machines. These exclusive features permit double tooling setups, fast, accurate bending results. Typical production rates average 300-400 bends per hour, and the machine is powered to handle work up to 1" O.D., 16-gauge (.062") steel tubes, ⅜" bar stock, or equivalent in continuous production.

Write for FREE DATA

PINES ENGINEERING CO., INC
Specialists in Tube Fabricating Machinery • 440 WALNUT • AURORA, ILLINOIS
PRODUCTION BENDING • DEBURRING • CHAMFERING MACHINES

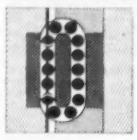
Get complete data today on this new highly versatile Pines Bender.

▲ For more details circle **NED-457 H7** on enclosed inquiry slip ▲

World's Finest Ball-Bearing SPLINES!

AVERAGE 40 TIMES LOWER FRICTION COEFFICIENT THAN ORDINARY SLIDING SPLINES!

Radically increase efficiency of transmitting or restraining high torque loads!



Saginaw b/b Splines can be fitted with integral gears, clutch dogs, bearing and sprocket seats or other attachments for use with electrical, hydraulic or pneumatic units. Units have been built from ⅛ TO 8 IN. DIAMETER, 3 IN. TO 10 FT. LONG. Saginaw Steering Gear Division of General Motors, Saginaw, Michigan. (Dept. 3P)

WRITE TODAY FOR NEW 1957 DATA BOOK

Saginaw b/b Splines

▲ For more details circle **NED-458 H7** on enclosed inquiry slip ▲

FOR LOW COST AIR POWER

With Safe-Q-Lube and Loadless Starting

Exclusive patented systems unloads compressor in event of low oil pressure. Safe-Q-Lube system and Loadless Starting provide smooth, free-rolling stops. Standard equipment on most models. 21 models to choose from, 1 to 90 CFM. Service from coast to coast through more than one hundred authorized depots. Write Dept. NED-55 today for detailed brochure.

QUINCY COMPRESSOR CO., QUINCY, ILL.

▲ For more details circle **NED-459 H7** on enclosed inquiry slip ▲

SPEED
DOCK LOADING
Insure SAFE Handling

Now . . . at low cost, equip your loading dock to meet every carrier level. Sturdy steel lip of Globe's new Trans-O-Matic Ramp moves up or down . . . rides automatically with truck bed during loading or unloading.

SMOOTHEST TRAFFIC FLOW

Cross-over for fork trucks and pallet loads is smooth and safe . . . dangerous gangplanks and nailed-down plates eliminated . . . accidents and breakage prevented. Box type reinforcement assures rigid platform.

EASY, SAFE OPERATION

Dependable hydraulic power does the work . . . control is by push-button within easy reach of workers. Automatic Safety Lock prevents sudden drop if truck pulls out. Rugged power unit is fully protected against dirt and weather. No excavation or piping needed; easily, quickly installed at any loading dock.

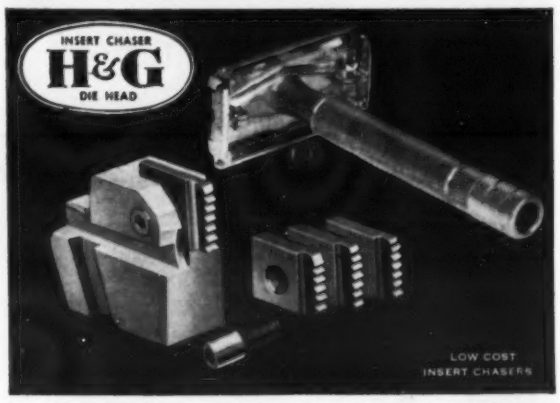
GLOBE
TRANS-O-MATIC RAMPS
PLANTS: DES MOINES - PHILADELPHIA - LONG BEACH, CAL.

Want More Information?

Write for complete data today.
GLOBE HOIST COMPANY
East Mermaid Lane at Queen St.
Philadelphia 18, Pennsylvania

▲ For more details circle **NED-460 H7** on enclosed inquiry slip ▲

DESIGNERS: HERE'S NEW DATA ON THREAD CUTTING



FOR LESS THAN $45 YOU GET 12 SETS, EACH SET GROUND READY TO GO

Men would not accept either idea at first . . .

INSERT CHASERS SAVE UP TO 33%

Insert chasers are like safety razor blades: they cost so little that you can throw them away when dull. Or, for utmost economy, you can resharpen them over and over again. Only a flash grind is required. For less than $45 you get a dozen sets of ¾—16 insert chasers, each set ground ready to go. You will be amazed at the quantity of threads they will cut, even to Class 3 specifications, with a minimum of downtime. FREE: "Unified and American Screw Thread Digest"

THE EASTERN MACHINE SCREW CORPORATION

28-48 Barclay Street, New Haven, Conn.

For more details circle NED-461 H7 on enclosed inquiry slip

Economical Sonoco paper

cones

have hundreds of uses!

SONOCO makes precision cones, at a cost so low they can be discarded after one-time use. Cones may be impregnated for strength, toughness and waterproofed. They can be perforated, printed, lacquer tipped, scored, notched, covered with novelty wraps. Solid colored stock also available. We make cones for containers, for protective packaging, novelties, etc.

- SIZES—1" to 30" lengths.
- TAPERS—45" to 44°.
- TOPS—Straight, round, closed.
- BASES—Polished, notched, plain.
- FINISHES—Smooth, rough, ground, flocked.

Write for full information and samples!

SONOCO PRODUCTS COMPANY

MAIN OFFICE — HARTSVILLE, S. C.

MYSTIC, CONN. • AKRON, IND. • LOWELL, MASS. • PHILLIPSBURG, N. J. LONGVIEW, TEXAS • PHILADELPHIA, PA. • LOS ANGELES, CAL. GRANBY, QUEBEC • BRANTFORD, ONT. • MEXICO, D. F.

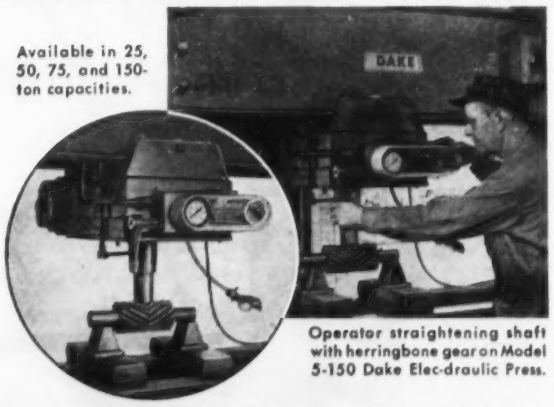
DEPENDABLE SOURCE OF SUPPLY

For more details circle NED-462 H7 on enclosed inquiry slip

DAKE *Elec-draulic* PRESS

OPERATES EASIER, FASTER...COSTS LESS!

Available in 25, 50, 75, and 150-ton capacities.



Operator straightening shaft with herringbone gear on Model 5-150 Dake Elec-draulic Press.

COMPLETELY NEW, this Dake electric-hydraulic forcing and straightening press offers operating advantages never before available in a low-cost shop press. *Rapid Ram Approach* automatically changes to power stroke when it contacts the work. *Variable Ram Speed* from zero to maximum under finger-tip control. *Movable Workhead,* self-contained—easy to center over work. Workhead can be purchased separately. *Modern Design,* all operating controls at convenient working height. Write for Bulletin 347.

DAKE PRESSES

DAKE CORPORATION

642 Seventh Street, Grand Haven, Michigan

For more details circle NED-463 H7 on enclosed inquiry slip

SEALING TAPE DISPENSER

moistens, measures and feeds tape

Length of moistened tape delivered by this No. 3 Tape-O-Matic power tape dispenser is controlled through use of preset key selectors. Uniform moistening is assured by regulated flow of warm water. Keyboard or selector controls can be mounted on the machine, connected to a foot treadle or placed at any convenient location on bench or over conveyor line. Feeding, measuring and moistening are controlled electronically. Kraft or reinforced gummed tapes from 2½ to 3 in. wide are handled. Made by **Better Packages, Inc.,** Plant No. 1C, 253 Canal St., Shelton, Conn.

For more details circle NED-464 H7 on enclosed inquiry slip

TAPPING HEAD

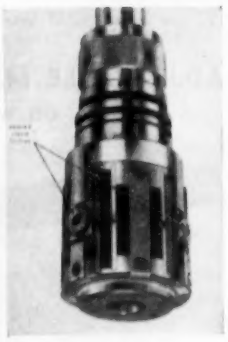
has No. 10 to ½-in. NF tap capacity

Positive drive, ball bearing mounted No. 17,000 Burgmaster tapping head has a cast aluminum housing and heat treated alloy steel shafts, gears and chuck. Forward and reverse engagement is through positive jaw clutches. One Rubberflex collet covers the No. 10 to ½-in. NF tap capacity on the model 1C turret drill. All tips are tang-driven to prevent slipping. Made by **Burg Tool Mfg. Co.,** Dept. NED, 15001 S. Figueroa St., Gardena, Calif.

For more details circle NED-465 H7 on enclosed inquiry slip

HONE SIZING METHOD

gages size during honing cycle



Sizing of honed bores during the honing cycle is afforded by Liquid Sizing method which automatically gages the bore diameter. Actual sizing is by metering liquid through orifices in the honing tool until it reaches a preselected pressure. As honing progresses, the bore increases in size and the pressure decreases. A Micro Switch then terminates the honing cycle, permitting the tool to complete the stroke and withdraw from the bore. Added advantage is flooding of coolant over most critical area during the honing cycle. Continuous flushing reportedly increases stone life and improves the finish control. Developed by **Barnes Drill Co.,** 866 Chestnut St., Rockford, Ill.

For more details circle NED-466 H7 on enclosed inquiry slip

GET AHEAD with Conforming Matrix

Stay Ahead in Your SPRAY DECORATING

Manufacturers of all the equipment needed to equip you with the most practical system for handling your particular projects most efficiently. We maintain a trained engineering staff familiar with all types of materials, translucents, teflon and metallics, and with knowledge of die casting, stamping and plastic molding procedures as they relate to high production spray finishing

AUTOMATIC MACHINES

Standard and special automatic and semi-automatic machines for decorating parts of all sizes, shapes. High production with small investment. Skilled operators unnecessary. Automatic clamping and ejection of parts. Adjustable sequence-type operation. Hydraulic two-fluid control system maintains accurate repeats and eliminates cost of explosion-proof controls. Paint in one or two directions. Steady, hydraulic controlled gun movement.

Conforming Matrix CORPORATION

338 Toledo Factories Building

Toledo 3, Ohio

For more details circle NED-467 H7 on enclosed inquiry slip

COMPLETE

steam cleaning facilities

AT A FRACTION OF THE USUAL COST

Write for FREE illustrated folder on the . . .

for cleaning, paint stripping, phosphating, sanitizing . . .

- Only 1 valve to operate
- Operates on 40-140 psi steam
- Easily installed
- Economically maintained

TURCO PRODUCTS, INC.

Chemical Processing Compounds

6135 South Central Ave., Los Angeles 1, Calif.

Factories: Newark, Chicago, Houston, Los Angeles, London, Rotterdam, Sydney, Mexico City, Naha (Okinawa)

Offices in all Principal Cities

For more details circle NED-468 H7 on enclosed inquiry slip

This control relay you install and forget

"How long will it last?" is a question you must ask every time you buy a control relay. The answer is: "Good for MILLIONS of operations" when you specify a Westinghouse Type NH relay. Here is positive performance, day in and day out.

For example, a neoprene shock washer on the base plate prolongs magnetic life by absorbing operational shocks. It also compensates for any mounting irregularities. Through the use of large-area fine silver contacts and consistently high contact pressure, contact resistance is kept very low. And all bearing surfaces are specially case hardened to keep wear to a minimum to insure proper operation.

The Type NH relay is available in any combination of open or closed contacts . . . up to 6 poles. Rated at 10 amperes continuous—up to 600 volts a-c.

FOR COMPLETE TECHNICAL INFORMATION on the Type NH, write to: Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pa. J-30272

YOU CAN BE SURE...IF IT'S

Westinghouse

For more details circle NED-469 H7 on enclosed inquiry slip

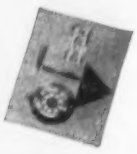
NEW!

REEVES® Vari-Speed MOTODRIVES

Sizes 200-300 for 1-5 hp.

● Hundreds of space-saving, space-fitting *standard* assemblies. Available in "c" flow or "z" flow models, the new sizes are versatile additions to the full line (1-40 hp.) of REEVES Motodrives.

Write for your free copy of new catalog—Dept. ND33-M571.



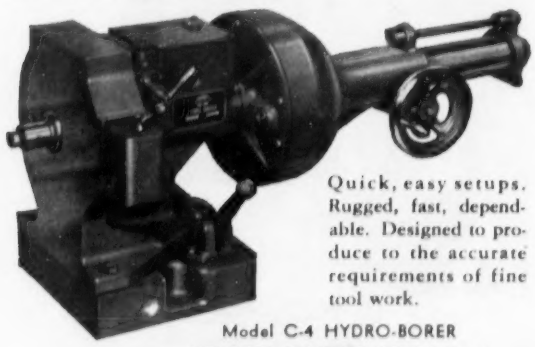
REEVES PULLEY COMPANY
Division of **RELIANCE Electric & Engineering Co.**
COLUMBUS, INDIANA

For more details circle NED-470 H7 on enclosed inquiry slip

GREENLEE **PRECISION BORING AT LOW COST**

Model C-4 HYDRO-BORER

Offers precision boring quality at low cost. Easily mounted on any type of base. Fixtures can be mounted on face of machine.



Quick, easy setups. Rugged, fast, dependable. Designed to produce to the accurate requirements of fine tool work.

Model C-4 HYDRO-BORER
WRITE FOR COMPLETE INFORMATION

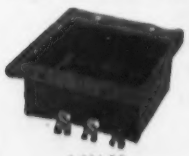
GREENLEE **GREENLEE BROS. & CO.**
2248 MASON AVENUE
Rockford, Illinois

For more details circle NED-471 H7 on enclosed inquiry slip

For **HEAVY DUTY WORK!**
Severest Electrical Services

P-506-CE—Plug with Cap

JONES PLUGS & SOCKETS
500 SERIES
Proven Quality!



S-506-DB
Socket with deep Bracket

For 5,000 Volts, 25 Amperes per Contact Alterable by circuit Characteristics.

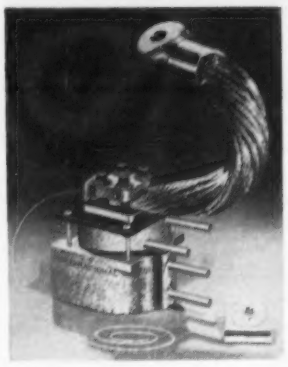
Socket contacts of phosphor bronze, knife-switch type, cadmium plated. Plug contacts hard brass, cadmium plated. Made in 2, 4, 6, 8, 10 and 12 contacts. Plugs and sockets polarized. Long leakage path from terminal, and terminal to ground. Caps and brackets, steel parkerized *(rust-proofed)*. Plug and socket blocks interchangeable in caps and brackets. Terminal connections most accessible. Cap insulated with canvas bakelite.

Write for Jones BULLETIN 21 for full details on line.
See New Developments at the WESCON SHOW Booths 2703-04

Jones **HOWARD B. JONES DIVISION**
CINCH MANUFACTURING CORPORATION
CHICAGO 24, ILLINOIS
SUBSIDIARY OF UNITED-CARR FASTENER CORP.

For more details circle NED-472 H7 on enclosed inquiry slip

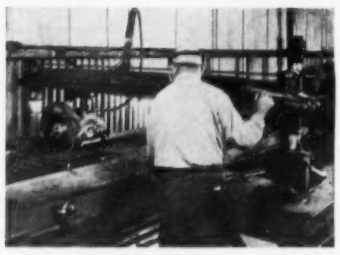
670-AMPERE RECTIFIER
is liquid-cooled germanium junction



Six efficient liquid-cooled germanium power junctions, rated at 670 amp rectified dc, are available in the range of 20 to 66 v rms for heavy power conversion. Efficiency is reported to be 98.5 per cent in these units which measure only 5 x 3⅞ x 3⅜ in. Connected in a three-phase bridge circuit, six of these junctions will deliver 170 kw (2000 amp at 85 v). Heavy continuous industrial loads can be handled because of recirculation of cooling medium over an internal cooling area of 52 sq in. in a volume of 48 cu in. Made by **International Rectifier Corp.**, 233 Kansas St., El Segundo, Calif.

For more details circle NED-473 H7 on enclosed inquiry slip

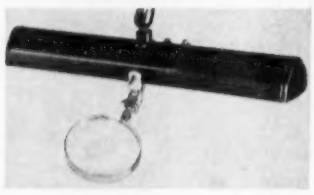
PANEL CUTTING MACHINE
for wood, metal and compositions



Cross-cutting, beveling and ripping of wide wood, metal or composition panels are performed readily with this heavy duty, two-post, panel cutting machine. Two posts support a machined cross-arm which mounts a roller-bearing carriage for the cutting member which traverses the length of the arm. Up to 62-in. cutting stroke is possible. Powerful 3 to 10-hp cutting member tilts to any angle of bevel and quickly swivels for ripping. Made by **DeWalt Inc.**, Dept. NEP, 14 Fountain Ave., Lancaster, Pa.

For more details circle NED-474 H7 on enclosed inquiry slip

ADJUSTABLE MAGNIFIER
mounts on work, bench or lamp



Inspection, gage setting and reading, and other close work is facilitated with this Swivl - Clamp 4 - in. magnifier. It mounts on work or inspection bench, draftsmen's lamp, machine tool or other location. The +5 diopter lens adjusts to any position and has an 8-in. focal length. Metal mounting bracket has all-position swivel. Price is $4. Offered by **Edmund Scientific Co.**, 180 E. Gloucester Pike, Barrington 25, N. J.

For more details circle NED-475 H7 on enclosed inquiry slip

Lesto PORTABLE-HEAVY DUTY ELECTRIC HAND SAW

- SAWS LIKE A DREAM
- PRECISE AS A SWISS WATCH
- FINEST BALANCE
- LEAST VIBRATION

8 BALL AND ROLLER BEARINGS for all moving parts

Turn it on, guide it . . . a Lesto saw will do the rest. Operating at a rate of 2300 strokes a minute, LESTO cuts finer than sandpaper-smooth, reaches hard-to-get-at-places.

VERSATILE! RUGGED! POWERFUL!

The LESTO Saw has many talents. With its 20 different blades, it cuts hardwood, softwood, plywood, formica, pressboard, plastic, metal, abrasives. It's a rip, cross-cut, coping, keyhole, band, scroll and jig saw—7 saws in 1!

LESTO has a PLANETARY GEAR—the best known mechanism to convert the rotary motion of the motor to the reciprocating motion of the blade.

Service and Parts Available Nationally—SAWS • DRILLS • SHEARS • NIBBLERS
See Your Industrial Distributor or Write:

VICTOR J. KRIEG, Inc.
PRECISION-MADE POWER TOOLS FOR UNSURPASSED PERFORMANCE
611 BROADWAY, NEW YORK 12, NEW YORK

For more details circle NED-476 H7 on enclosed inquiry slip

UNION METAL
Material Handling Equipment

For more details circle NED-477 H7

"Our Turbo Air Blowers were often shutdown by motor starting currents . . . *until we changed to Fusetron Fuses"*

B. D. McGaughey
ELECTRICAL SUPERINTENDENT, Copperweld Steel Company, Glassport, Pa.

For more details circle NED-478 H7

V

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Use
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Ret
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And
You
See

EVERY TYPE—EVE
Ball Bearings
Cylindrical Roller B
Spherical Roller Bea
Tapered Roller Bear

SKF®

SKF INDUSTRIES, INC., PHILADELP

For more details circle NED-479 H7

AVAILABLE NOW

This useful guide to material handling economies

• Get complete, new facts about Work-O-Matic Drop-Bottom Boxes and Positioning Stands—the amazing work, time and money saving team.

MAIL THIS COUPON TODAY!

Write to...

THE UNION METAL MANUFACTURING CO.
CANTON 5, OHIO

Please send me a copy of your new Work-O-Matic Catalog No. 89.

NAME_____
TITLE_____
COMPANY_____
CITY_____ ZONE____ STATE____

le NED-477 H7 on enclosed inquiry slip ▲

motor

e

Gaughey
RICAL
INTENDENT,
pperweld
teel Company,
Glassport, Pa.

Mr. McGaughey continues . . .

"As our Turbo air blowers build up speed there is a back up pressure exerted which puts an overload on the motors. Consequently, it takes longer for the motors to gain normal running speed.

"Frequently, the 100 ampere renewable fuses we were using couldn't hold these overloads—and we would have a shutdown.

"We were anxious to eliminate these down-periods, but we didn't want to sacrifice safe fuse protection on our 30 h.p., 3600 R.P.M., 220 volt, 3 phase, 60 cycle motors that power the Turbo air blowers.

"We decided to protect these motors with 100 ampere Fusetron dual-element fuses. This move proved to be the answer to our problem. Since changing to Fusetron fuses we haven't had any trouble with our Turbo air blowers being 'knocked out' on motor starting currents."

DON'T RISK LOSSES! One lost motor . . . one needless shutdown . . . one destroyed switch or panel . . . one burned out solenoid . . . may cost you far more than replacing every ordinary fuse with Fusetron dual-element Fuses. *Write for bulletin FIS.*

FOR LOADS ABOVE 600 AND UP TO 5000 AMPS.—USE BUSS HI-CAP FUSES!

When coordinated with Fusetron fuses they will not open ahead of the fuse nearest fault . . . Write for bulletin HCS.

Bussmann Mfg. Division (McGraw-Edison Co.)
University at Jefferson, St. Louis 7, Mo. 857

y Safe! Install FUSETRON Fuses and BUSS Hi-Cap Fuses throughout entire Electrical System!

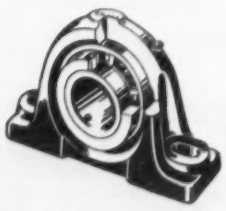
le NED-478 H7 on enclosed inquiry slip ▲

Vacation time

From bearing failures take a vacation
Use SY-FY†, the mounting sensation
Their famous Red Seal with DuPont's Fairprene
Retains lubricant, keeps bearings clean.

Special features for easy installation
And an Alemite fitting for re-lubrication
You can replace all mountings of similar design
See the distributor with **SKF**'s line. 7747

† Unit pillow blocks and flanged mountings



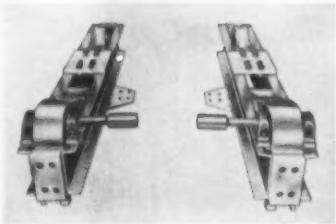
RY TYPE—EVERY USE

Bearings
ndrical Roller Bearings
erical Roller Bearings
ered Roller Bearings ("Tyson")

S. Pat. Off. Tyson Bearing Corporation
C., PHILADELPHIA 32, PA.

le NED-479 H7 on enclosed inquiry slip ▲

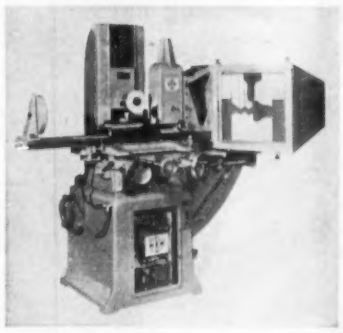
OVER-RIDING CRANES
1-10-ton models for spans to 50 ft



Hand pushed, hand chain driven or motor driven styles of over-riding cranes are available in capacities from 1 to 10 tons for spans up to 50 ft. They are offered as assembled units, or the packaged components can be purchased for assembly at the job site. Included in package are end trucks with all bridge beam attachment fittings, motor drive parts, controls and electrification equipment. Single or double bridge type cranes have cast iron wheels with hardened treads mounted on straight, tapered or spherical roller type antifriction bearings, depending on capacity or type of service. Rail sweeps and maple bumpers are standard. Made by **Becker Crane & Conveyor Co.**, 4905 Ridge Rd., Cleveland 9, O.

▲ For more details circle NED-480 H7 on enclosed inquiry slip ▲

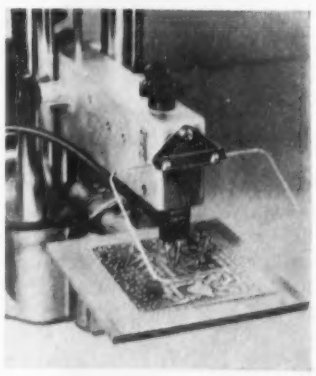
PRECISION FORM GRINDER
tool guided by projected outline



Continuous lubricating system, timer belt, 110-v electric control, closer tolerances on downfeed and other improvements have been incorporated in the Model VG-3 Visual Grind machine. It will form grind steel and carbide parts to precision tolerances without stopping for inspection. Workpiece is projected on a ground glass viewing screen optically through magnification systems ranging from 10:1 to 100:1. Work is ground and simultaneously inspected on the viewing screen enlargement, and operator guides contour in accordance with properly enlarged outline of desired finished part. Made by **Cleveland Grinding Machine Co.**, Dept. S.M., 1610 Eddy Rd., Cleveland 12, O.

▲ For more details circle NED-481 H7 on enclosed inquiry slip ▲

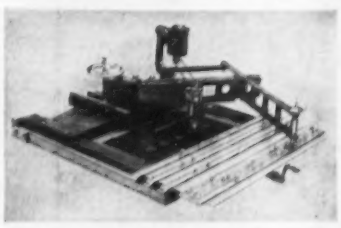
PRINTED CIRCUIT WELDER
accessory fits standard machine



Stored-energy welding of components to printed circuit, metal coated ceramic or extremely thin metal surfaces is possible with this Duo-Weld electrode accessory for mounting on any Weldmatic bench welder. Two electrodes are mounted adjacently over work, and pressure is variable for welding materials of different thicknesses. Strong, uniform joints formed resist vibration and a wide range of temperatures. Made by **Unitek Corp.**, Weldmatic Div., Dept. NED, 275 N. Halstead Ave., Pasadena 8, Calif.

▲ For more details circle NED-482 H7 on enclosed inquiry slip ▲

ENGRAVING MACHINE
for small nameplates, large panels



Areas ranging from small nameplates up to panels measuring up to 25 in. by any length can be engraved in the model I-R Engravograph by clamping them on the machine base. Pantograph assembly, motor and copy table are built as an independent unit on one chassis. For larger work, the chassis can be removed from the base and placed on a workpiece of any dimension. Permanently mounted panels can be engraved in place. Illustration shows engraving of a 53 x 90-in. steel board. Made by **New Hermes Engraving Machine Corp.**, Dept. 26, 13-19 University Pl., New York 3, N. Y.

▲ For more details circle NED-483 H7 on enclosed inquiry slip ▲

Speed Experimental Work with

a $17.00 value only $14.95

You get instant response—*full soldering heat, 250 watts—in just 5 seconds* from Weller Soldering Gun, Model 8250A. Triggermatic control for quick-as-a-flash "on-off" operation—no need to unplug between jobs. No waiting or tedious assembly. Always ready for a wide range of research, testing, design and development work in laboratories, model shops and industrial plants.

KIT GIVES EXTRA VALUE—Kit (8250AK) contains streamlined Soldering Gun with balanced pistol grip, dual spotlights; ample supply of famous Kester Solder, general purpose type; sturdy metal carrying case; tip for cutting plastic materials; smoothing tip for heat-sealing, joining thermo-plastics, etc.; 2 valuable instruction booklets.

FULLY GUARANTEED FOR 1 YEAR—Order from your Electronic Parts Distributor or write for catalog bulletin.

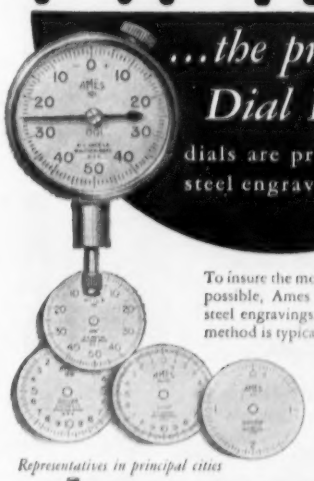
Weller ELECTRIC CORPORATION
601 Stone's Crossing Rd., Easton, Pa.

▲ For more details circle NED-484 H7 on enclosed inquiry slip ▲

AMEs

...the preferred Dial Indicators

dials are printed from steel engravings only!



To insure the most accurate and legible graduations possible, Ames Dial Indicators are printed with steel engravings exclusively. The use of this costly method is typical of Ames' insistence on maximum precision in every detail. It explains why the lifetime cost of Ames Dial Indicators is lower, and why so many quality control engineers specify Ames as "*preferred*". Write today for complete information.

Representatives in principal cities

B.C. AMES CO.
34 Ames Street, Waltham 54, Mass.

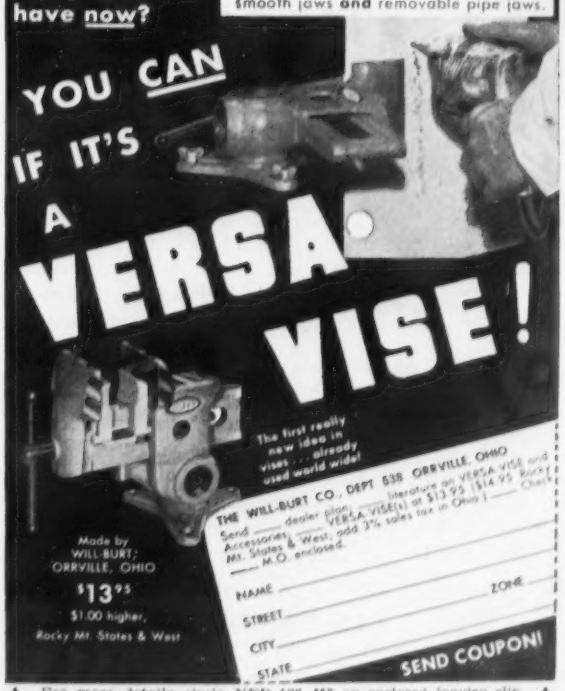
MANUFACTURERS OF MICROMETER DIAL GAUGES • MICROMETER DIAL INDICATORS

▲ For more details circle NED-485 H7 on enclosed inquiry slip ▲

CAN YOU DO THIS... with vises you have now?

Makes awkward jobs easy! Turn VERSA-VISE a full circle—standing or laid down—and lock it where you want it just by tightening the jaws! Use it to hold **anything**, paper-thin up to 5" thick. Has anvil, smooth jaws **and** removable pipe jaws.

YOU CAN IF IT'S A VERSA-VISE!



The first really new idea in vises . . . already used world wide!

Made by WILL-BURT, ORRVILLE, OHIO
$13.95
$1.00 higher, Rocky Mt. States & West

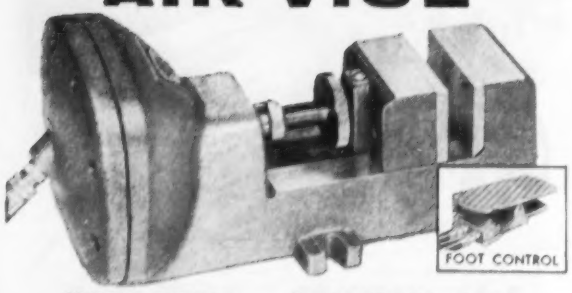
THE WILL-BURT CO., DEPT 838 ORRVILLE, OHIO
Send ____ dealer plan ____ literature on VERSA-VISE and Accessories ____ VERSA-VISE(s) at $13.95 ($14.95 Rocky Mt. States & West; add 3% sales tax in Ohio) ____ Check ____ M.O. enclosed.

NAME_____
STREET_____ ZONE____
CITY_____
STATE_____

SEND COUPON!

▲ For more details circle NED-486 H7 on enclosed inquiry slip ▲

Speedy
AIR VISE



HIGH SPEED · POWERFUL GRIP

New, improved model speeds up all repeat operations—*milling, drilling, tapping, punching, bending, riveting.* Both hands left free to produce more! Light squeeze to 2250 pounds pressure! Extra thick jaws for attaching jigs. Jaws open to 3-inches; 1/16" to 5/8" maximum travel. Complete with foot control, air hose and fittings..... **$44.00**

SPEEDY 1-TON AIR PRESS

Does the work of expensive presses! Power factor 15 times air line pressure. 5-inch throat; Ram 0 to 5"; stroke ⅝"; table 5" x 5". Operated by foot or fingertip controls. **$85.00**

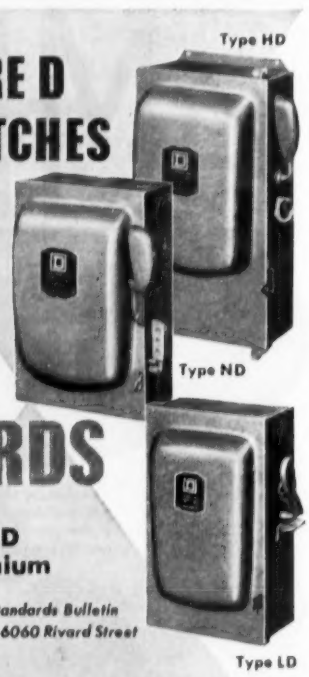
Order from Your Supplier or Write for Air Tool Catalog

W. R. BROWN CORP., 2647 N. Normandy Ave., Chicago 35

AIR TOOLS • AIR VISES • AIR REGULATORS • FILTERS • COMPRESSORS

For more details circle NED-487 H7 on enclosed inquiry slip

GET SQUARE D SAFETY SWITCHES
and benefit from the
NEW NEMA STANDARDS



Types HD, ND, LD at no cost premium

Write for New NEMA Standards Bulletin
Address Square D Company, 6060 Rivard Street Detroit 11, Michigan

NOW...EC&M PRODUCTS ARE A PART OF THE SQUARE D LINE

SQUARE D COMPANY

For more details circle NED-488 H7 on enclosed inquiry slip

NEW pocket size thickness gauge
ELCOMETER

Measures Non-Magnetic Coatings with ± 5% ± .0001" Accuracy

ELCOMETER measures thickness of porcelain enamel, paints, platings, foils, glass, paper, plastics, and other non-magnetic coatings quickly and accurately. Gauges flat or curved surfaces and hard-to-get-at spots easily. Needle locking device assures correct reading every time. Complete with tough leather case containing inner pocket for test strips. Weighs only 6 oz. Completely self-contained. Retail price: $68.00, F. O. B. Cleveland.

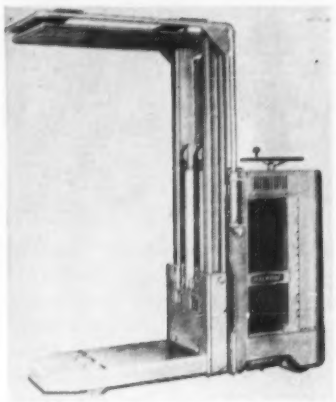
WRITE FOR ILLUSTRATED FOLDER

FERRO

FERRO CORPORATION
4181 East 56th St. • Cleveland 5, Ohio

For more details circle NED-489 H7 on enclosed inquiry slip

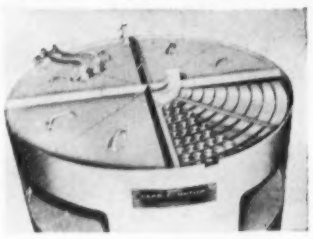
LOAD STABILIZER ATTACHMENT
for narrow-aisle platform trucks



Safe lateral movement of tall, unstable loads is possible on narrow-aisle platform trucks equipped with a load stabilizer attachment. Made of tubular steel, it has a flat, rubber-faced, spring - supported pressure plate that contacts the top of a load. Platform elevates the load of any height until its top touches the plate with sufficient pressure to hold it securely. Attachment for any Raymond narrow-aisle straddle or platform truck is easily removed for normal stacking operations. Made by **Raymond Corp.**, 41-152 Madison Ave., Greene, N. Y.

For more details circle NED-490 H7 on enclosed inquiry slip

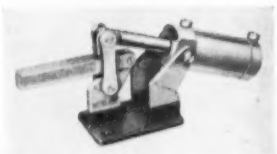
PARTS STORAGE UNIT
for automated processing lines



Circular storage unit for irregularly shaped and interlocking parts that do not normally roll is designed for use in automated processing lines. It offers a demand feeding system from a controlled mobile storage unit which receives parts by gravity from a collecting conveyor. Although designed for such parts as spur gears, other rolling parts can be stored. Illustrated unit has a capacity of 600 parts in two levels. Operation is on a first-in, first-out basis. As many levels or tiers as required can be used. Interlocked limit switches continuously sense the capacity level of parts and shut off the equipment when full. Made by **Michigan Tool Co.**, Gear-O-Mation Div., 17147 E. Ten Mile Rd., East Detroit, Mich.

For more details circle NED-491 H7 on enclosed inquiry slip

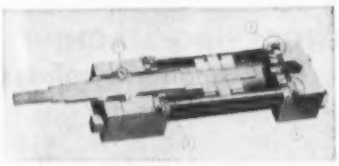
PNEUMATIC TOGGLE CLAMP
holds work with 2000-lb pressure



With normal air-line pressure of 90 psi, this air - operated De-Sta-Co toggle-clamp will hold down work with pressures up to 2000 lb. The 16-lb unit has clamp life expectancy under normal operation of at least 400,000 cycles. It is equipped with hardened bushings and pivot rods, individually replaceable components and forged work holding bar. Model 858 Clampomatics are especially recommended for multiple split-second clamping. Made by **Detroit Stamping Co.**, 360 Midland Ave., Detroit 3, Mich.

For more details circle NED-492 H7 on enclosed inquiry slip

TEFLON-SEALED CYLINDERS
seals resist most fluids and high temperatures in hydraulic service



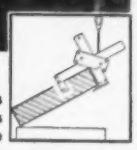
Use of Teflon seals in line of cylinders enables them to resist virtually all fluids, as well as temperatures up to 500° F. Teflon pressure-energized tubing end seal design, called SHEF for its resistance to shear, heat, extrusion and fluid, has made possible increases in pressure ratings from 2000 to 3000 psi in shock service and 3000 to 5000 psi in nonshock service. Cylinders have a cushion adjusting screw with a self-regulating Teflon lock seal.

External and mounting dimensions are identical to present Model H line. High pressure heavy duty LH line is available in 11 bore sizes from 1½ to 14 in. with normal shock and nonshock operating ratings from 1500 to 500 psi and 2500 to 800 psi, respectively. Made by **Flick-Reedy Corp.**, Miller Fluid Power Div., 2002-08 N. Hawthorne Ave., Melrose Park, Ill.

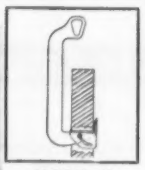
For more details circle NED-493 H7 on enclosed inquiry slip

One-Motion Reel Loading Cuts Time and Costs!

DIXON
One-Man
COIL GRAB



MODEL A COIL GRAB
Wedge separates coils easily. Lifts and turns in one motion.



MODEL H COIL HOOK
Pivoting shoe supports, turns, and locks coil in position in one motion.

The Dixon Coil Grab saves labor and speeds coil handling by enabling one man to lift, turn and load coil on the stock reel with a single, easy motion. Forged steel wedge speeds separation of stacked coils. Positive grip and support eliminate coil damage, assure operator safety. Standard models available from stock. Capacities from 1,000 to 5,000 and 10,000 to 15,000 lbs., for coil widths ¼" to 48".

ALL MODELS AVAILABLE FROM STOCK

FREE BULLETIN
Illustrates standard models and shows how to handle all coil sizes safely, rapidly, without damage. Write for it today.

DIXON

DIXON AUTOMATIC TOOL, INC.
2302 — 23rd Avenue
ROCKFORD, ILLINOIS

AUTOMATIC PARTS HANDLING AND ASSEMBLY EQUIPMENT

For more details circle NED-494 H7 on enclosed inquiry slip

HARGRAVE Tested Tools THE CINCINNATI TOOL COMPANY

Cut your own precision gaskets with HARGRAVE No. 414
HANDY GASKET CUTTER

HARGRAVE No. 414 Handy Gasket Cutter, hand operated—with inch and metric scales for direct reading. Phenolic body with steel blades. Cuts ¼" to 6" round gaskets, odd shapes and straight pieces any size from every pliable sheet material.

No. 415 Hargrave Extension Gasket Cutter with aluminum body, steel blades will cut precision round gaskets from 1" to 13" (¼" to 13¾" with use of offset pivot post).

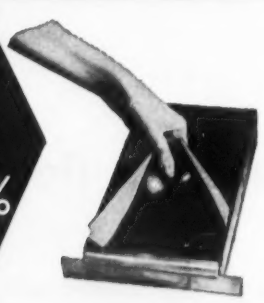
WRITE FOR FREE CATALOG

Showing a Clamp for every purpose, openings from ¾" to 12' and depths from 11/16" to 16", also Chisels, Punches, Masonry Drills for hand and power hammers. Carbide Tipped Rotary Drills, Gasket Cutter, File Cleaners, etc.

THE CINCINNATI TOOL COMPANY
1995 Waverly Avenue, Cincinnati 12, Ohio
THERE IS AN INDUSTRIAL DISTRIBUTOR STOCK NEAR YOU

For more details circle NED-495 H7 on enclosed inquiry slip

REDUCE CLEAN-UP TIME 50%



a thin film of
RELEASE-COTE

on any surface sheds residue glues, adhesives, plastic coatings, inks, paints . . . like magic!

● Machines last longer because RELEASE-COTE repels coating materials, eliminating build-ups that tax motors and moving parts.

● Operators love RELEASE-COTE's gentleness to their hands. A little rubbed on the hands prevents coating material from sticking to the skin and nails.

Available in qt., gal., 5 gal. and tube.

Write for literature.

ESTABLISHED IN 1893 POTDEVIN

Distributed by
POTDEVIN MACHINE CO.
273 North Street, Teterboro, N. J.
Designers and manufacturers of equipment for gluing and labeling, coating, laminating, bag making and printing.

For more details circle NED-496 H7 on enclosed inquiry slip

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J. H. SESSIONS & SON

Air Force and Signal Corps transit case hardware and Engineer Corps chest hardware to exact government specifications. Standard and special stampings and stamped assemblies in a wide range of finishes. Write for literature.

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289 RIVERSIDE AVE., BRISTOL, CONN.

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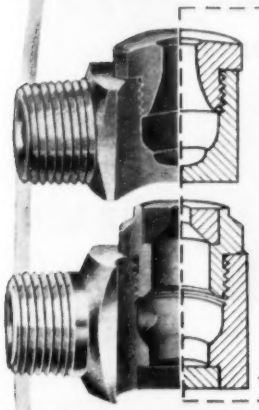
SPRAY NOZZLES



already designed

to meet your specifications

When you check Spraying Systems' Catalog 24 . . . the range of "standard" spray nozzle types, capacities and materials is so great in number . . . that it is rare when you cannot find a nozzle already made to meet your specifications, no matter how "special" your specifications might be. With Spraying Systems you gain the advantages of special nozzle performance characteristics at lower cost standard nozzle price. For complete information write for your free copy of the forty eight page reference Catalog 24.

SPRAYING SYSTEMS CO.
3211 RANDOLPH STREET • BELLWOOD, ILLINOIS
ADVANCED SPRAY NOZZLE DESIGN FOR NEW DIMENSIONS IN CONTROL AND PERFORMANCE

For more details circle NED-498 H7 on enclosed inquiry slip

Inducto "Push-Out" Furnaces save minutes on every melt

Inducto "Push-Out" furnaces with removable crucibles save valuable minutes in transfer time on every melt . . . meaning extra melts per day . . . thousands of extra castings each year. The moment the charge in one crucible is ready for pouring, the power is immediately transferred to the waiting charge in the other crucible. The crucible of molten metal is raised from the furnace hydraulically so it can easily be transported to the molds.

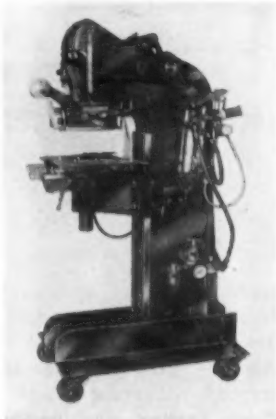
Inducto "Push-Out" furnaces are short and compact, occupying minimum floor space. The operator's controls are mounted on the furnaces for convenience and accessibility. When teamed with Inducto Precision Control, these furnaces offer the ultimate in production melting.

More detailed information may be obtained by writing for Bulletin 70. Write today.

INDUCTOTHERM CORP.
412 Illinois Ave. • Delanco, N. J.

For more details circle NED-499 H7 on enclosed inquiry slip

ROLL LEAF STAMPING PRESS handles flat to 24-in. high items

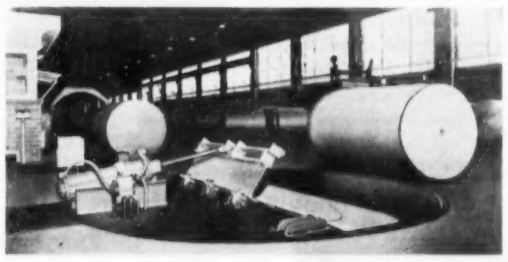


Kensol No. 110 extra heavy duty roll leaf stamping press is available with one or two air cylinders driving the double toggle head action. Single cylinder model (shown) has a 6 x 8-in. imprinting area and two 8-in. 500-w cartridge heaters. Double cylinder press has 9 x 12-in. imprinting area and three 11-in. heaters of 600-w each. Both models have 3-in. head stroke, will imprint work from flat up to 24 in. high and automatically compensate for thickness variations. Dial of Robertshaw thermostat is calibrated in degrees. The dwell timer is calibrated every 0.1-second up to 6 seconds. Depth of throat is 8½ in., and work tables are 12 x 14 in. or 18 x 18 in. Automatic work feeders can be used. Made by **OlsenMark Corp.**, 126 White St., New York 13, N. Y.

For more details circle NED-500 H7 on enclosed inquiry slip

FLOOR CONVEYOR SYSTEM handles heavy skids, rolls, pallets in automatic sequence of operations

Automated conveyor system is mounted flush with the floor level for moving heavy rolls, skids, pallets and similar loads. Prefabricated straight sections



are built in varied lengths. All controls, conveyors and turntables can be adapted to automatic banding, tying and other operations. Operations can be done automatically with one operator by synchronizing the electrical controls and conveyors.

Automated system consists of series of support rollers on which a powered conveyor belt travels, and turntables for loading, unloading and changing direction. System is supplied with all wiring, control boxes and centrally located controls, with automatic weighing and recording optional. Made by **Engineering Products Co.**, Dept. ND, 122 S. Michigan Ave., Chicago 3, Ill.

For more details circle NED-501 H7 on enclosed inquiry slip

PLS

For your convenience: available in handy 1-lb. brush top cans.

1. Takes less PLS to give a perfect seal.
2. One compound for many services: water...oil...gas...steam...chemicals...petroleum products—low and high pressures.
3. Never washes out—one application lasts forever.
4. Never hardens: joints may be easily broken after years of service—no damaged connections.

Prove it to yourself. Send for a free sample.

Crane Packing Company
6411 Oakton St., Morton Grove, Ill. (Chicago Suburb)

JOHN CRANE CRANE PACKING COMPANY

In Canada: Crane Packing Co., Ltd., 617 Parkdale Ave., N., Hamilton, Ont.

For more details circle NED-502 H7 on enclosed inquiry slip

Introducing the new FEDERAL "55"

Handles work formerly confined to larger, more costly presses!

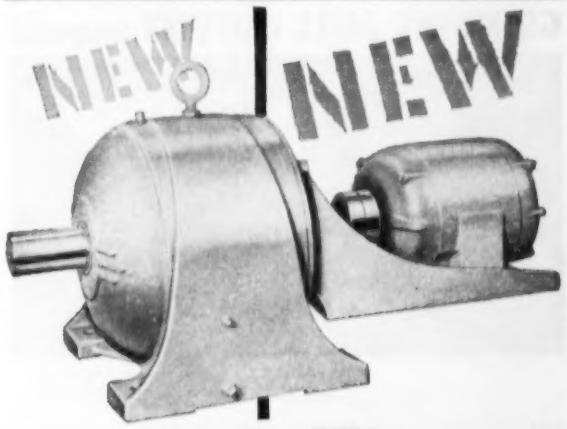
A great press—just check its dimensions! The "55" is outstanding for other reasons, too. Rugged. Precision-built. With the many *extra quality* features that have made FEDERAL PRESSES famous the world over. Available in geared or flywheel models, with mechanical or air clutch. WRITE FOR NEW CATALOG.

No. 55 Flywheel type 56-ton capacity

Federal Press Company
706 Division St., Elkhart, Ind.

FEDERAL Open back Inclinable PRESSES
32 Years of Quality Construction

For more details circle NED-503 H7 on enclosed inquiry slip



Louis Allis
LINE-O-MOTOR

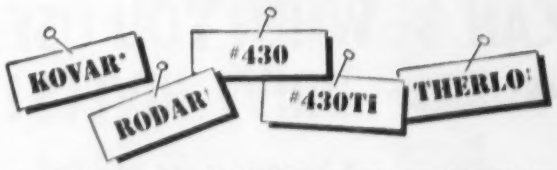
Louis Allis LINE-O-MOTOR is a motorized gear reducer built to accommodate motors of any speed or enclosure.

LINE-O-MOTOR is available in ratings from 1 to 75 hp., double and triple reductions with ratios from 5.06 to 230:1, in both foot- and vertical flange-mounted styles. Write to the Louis Allis Company, 436 East Stewart Street, Milwaukee 1, Wisconsin.

LOUIS ALLIS

For more details circle NED-504 H7 on enclosed inquiry slip

Superior Tube adds 5 New Glass Sealing Alloys to standard line



Now Superior offers glass sealing alloy tubing with expansion characteristics to meet practically any glass sealing requirement. These five new analyses are in addition to six already in the line. Superior also offers titanium tubing for ceramic-to-metal seals. All are available in quantities as small as 50 ft. and are cold drawn to close tolerances. Size limits in most cases from .012 to 1⅛ in. OD. Write for new Data Memorandum 15 giving technical information on all these alloys and the known applications for them. Superior Tube Company, 2018 Germantown Ave., Norristown, Pa.

Data Memorandum #15

Superior Tube
The big name in small tubing
NORRISTOWN, PA.

Johnson & Hoffman Mfg. Corp., Mineola, N.Y.—an affiliated company making precision metal stampings and deep-drawn parts.

*Stocked and sold by the Stupakoff Division of the Carborundum Co., Latrobe, Pa. T.M. Reg. U.S. Pat. Off., Westinghouse Electric Corp.
†T.M. Reg. U.S. Pat. Off., Wilbur B. Driver Co.
‡T.M. Reg. U.S. Pat. Off., Driver-Harris Co.

For more details circle NED-505 H7 on enclosed inquiry slip

BUILD ECONOMY RACKS

USE YOUR STOCK PIPE

AND NU-RAIL

SLIP-ON FITTINGS

NO WELDING NO THREADING

SEND US YOUR PROBLEM!

LET US PROVE THAT NU-RAIL CAN:

- Increase storage space
- Reduce rack cost
- Slash erection time

ON ANY PIPE STRUCTURE

Firms of all sizes have proved overall cost reductions through the use of pipe and NU-RAIL Slip-on Fittings in constructing:

RACKS · TABLES · STANDS · SHELVES · RAILS · BOOTHS · ENCLOSURES

THE HOLLAENDER MANUFACTURING CO.
3839 Spring Grove Avenue • Cincinnati 23, Ohio

For more details circle NED-506 H7 on enclosed inquiry slip

GRINDING MILL OUTPUT upped!

Performance proved! Sturtevant Air Separators, in closed circuits with grinding mills, have increased mill capacities from 25 to 300% while lowering power consumption as much as 50% in the cement industry.

Easily adaptable to your materials! Sizes of Sturtevant Air Separators, ranging from 3 to 18 feet dia., can be engineered to fit your specifications.

Cost-cutting features include rugged construction for a lifetime of low down-time service *plus* easy accessibility for quick maintenance (typified by the "OPEN-DOOR" design in other Sturtevant equipment).

Write for bulletins on Sturtevant Air Separators and other custom-built equipment listed below. STURTEVANT MILL CO., 114 CLAYTON ST., BOSTON 22, MASS.

STURTEVANT
Dry Processing Equipment

The "OPEN-DOOR" to *lower* operating costs over *more* years

CRUSHERS • GRINDERS • MICRON-GRINDERS • SEPARATORS
BLENDERS • GRANULATORS • CONVEYORS • ELEVATORS

For more details circle NED-507 H7 on enclosed inquiry slip

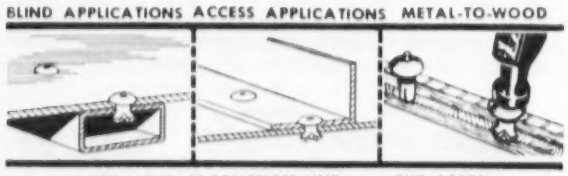
LOOK HOW EASY... AND FAST RIVETING CAN BE WHEN YOU USE SOUTHCO DRIVE RIVETS!

Rivet and Mfg. Patented.

a hammer is the only tool
...drive like nails
...automatic "pull-up" action

Fastest for:

BLIND APPLICATIONS ACCESS APPLICATIONS METAL-TO-WOOD



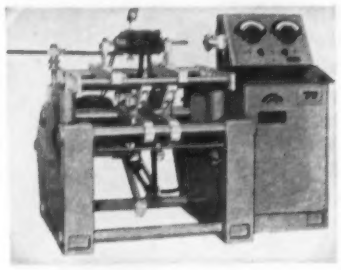
SPEED YOUR PRODUCTION LINE . . . CUT COSTS!

For complete data, write Southco Division, South Chester Corporation, 243 Industrial Highway, Lester, Pa.

SOUTHCO FASTENERS LION
©1956

For more details circle NED-508 H7 on enclosed inquiry slip

STATIC-DYNAMIC BALANCER
for parts weighing up to 100 lb



This belt-over-the-part balancing machine for up to 100-lb parts indicates both the angle and amount of unbalance on two electric meters. Static and dynamic balancing are performed with a high speed belt drive which rotates the part between the machine bearings. Switch in control cabinet permits the operator to change the plane of correction instantly. Positive plane separation is assured by the pivoted, vibrating cradle design. Made by **Tinius Olsen Testing Machine Co.**, 6059 Easton Rd., Willow Grove, Pa.

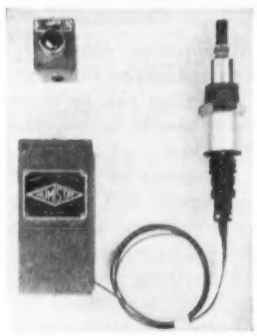
For more details circle NED-509 H7 on enclosed inquiry slip

AGITATOR SELECTOR
slide rule tells best mixer for job

The proper Pneumix agitator for any liquid batch mixing job is revealed with single setting of this dial type slide rule. Pointer is turned to the size of batch to be mixed. Correct agitator is indicated in window opposite the consistency of the fluid and the amount of agitation desired. Details of eleven models of these air-driven agitators with capacities from 5 to 2400 gal are shown on back of selector. Available free from **Eclipse Air Brush Co.**, 421 Park Ave., Newark 7, N. J.

For more details circle NED-510 H7 on enclosed inquiry slip

DEW-POINT MONITOR
protects pneumatic instruments



Unfavorable moisture build-up in air lines of pneumatically operated instruments is detected by this Dew-Point Monitor, and it sounds an alarm when moisture approaches the danger limit. A small plug-in electric hygrometer element senses moisture content changes and is installed directly in the pressure system. The Humistat humidity controller can be set to actuate the alarm at dew-point temperatures as low as −60° F at 150 psi. Equipment can be used at pressures to 1000 psi. Made by **American Instrument Co.**, 8010 Georgia Ave., Silver Spring, Md.

For more details circle NED-511 H7 on enclosed inquiry slip

MAGNETIC MOTOR STARTERS
components snap or slide together in unit serviced by screwdriver

Size is reported to be 42 per cent smaller than previous open forms for the "100 Line" NEMA Size 0 and 1 magnetic motor starters. Principal components snap or slide together for quick inspection and maintenance. Contacts are easily inspected without tools. The overload trip setting on each of two overload relays can be adjusted up to ±15 per cent of nominal heater rating.

Quiet operating starters can be mounted in any position, with a screwdriver the only tool required. Removable enclosure sides (see photo) facilitate all wiring of the pressure type terminals from the front. Size 0 is rated for 5 hp at 440 v and Size 1 is rated for 10 hp at 440 v. Contactor, nonreversing, combination, reversing and multispeed forms are available. Made by **General Electric Co.**, 1 River Rd., Schenectady 5, N. Y.

For more details circle NED-512 H7 on enclosed inquiry slip

RCA REPORTS "SUBSTANTIAL SAVINGS on Threaded Stampings from Mohawk"

By taking advantage of Mohawk's unique method of blanking, forming and threading in one completely automatic operation, RCA is now able to purchase this special ¼"-20 nut at substantial savings over former methods of production.

The threaded hole is held to any class fit required, so that ease of assembly is assured. Every part is usable—there are no rejects.

Whether you now make them in your own plant or purchase them, you can make substantial savings on large quantities of small threaded parts, and at the same time get guaranteed uniform quality by sending prints and specifications or writing to:

the mohawk mfg. co.
MIDDLETOWN, CONN.

For more details circle NED-513 H7 on enclosed inquiry slip

Do you screen, sift or grade dry materials?

Get the facts on BAR-NUN *Rotary* SIFTERS

Features include: Rapid, accurate separations, achieved by complete rotary motion . . . big capacity in limited floor space . . . dust-tight, totally enclosed construction . . . easy cleaning . . . optional stainless steel product zone . . . all-mechanical heavy-duty construction. Available with from 2 to 78 square feet of screen area—for single or multiple separations of dry materials, as fine as 325 mesh. Here's real screening efficiency, economy, durability.

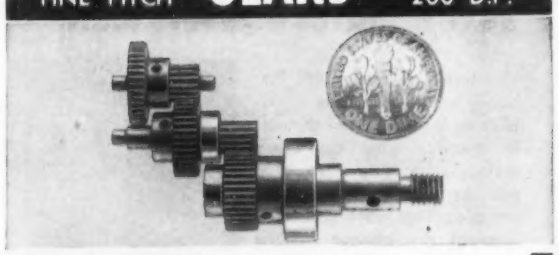
Details in 6-page Bulletin 503

FEEDING · MIXING · SIFTING · GRINDING · WEIGHING · PACKING and PACKAGING EQUIPMENT FOR THE PROCESS INDUSTRIES

B. F. GUMP CO.
Engineers and Manufacturers since 1872
1336 S. Cicero Avenue, Chicago 50, Illinois

For more details circle NED-514 H7 on enclosed inquiry slip

FINE FINE PITCH GEARS 20 to 200 D.P.



SPECIAL GEARS
COMMERCIAL AND PRECISION

SPECIAL GEAR BOXES
ENGINEERED AND BUILT
TO MEET YOUR REQUIREMENTS

STOCK GEARS
20 to 64 D.P.

Arizona Gear & Manufacturing Co.
3544 East Ft. Lowell Road
Tucson, Arizona

For more details circle NED-515 H7 on enclosed inquiry slip

PROVED...

IN OIL AND PETROLEUM LIQUIDS

KEY® Graphite Paste

holds joints, threads and gaskets leakproof against all oils, gasolines, distillates and other petroleum liquids which have a tendency to penetrate ordinary oil-mixed compounds; also ideal on high temperature steam lines and gas handling equipment.

To test oil insolubility, in any petroleum liquid, immerse a small quantity of KEY Paste in a beaker of the liquid, stir the paste for a few seconds, and notice that it does not dissolve or discolor the liquid.

Stocked by over 1000 Supply Houses

KP 5702

SEND FOR YOUR FREE SAMPLE

Write Dept. Z-8 for trial can of KEY Graphite Paste.

W-K-M
DIVISION OF acf INDUSTRIES INCORPORATED

PLANT: MISSOURI CITY, TEXAS
MAILING ADDRESS: P. O. BOX 2117, HOUSTON, TEXAS

For more details circle NED-516 H7 on enclosed inquiry slip

SHADOGRAPH

gives you faster, precision weighing

Shado-edge indication is projected by a beam of light—read it from any angle without danger of parallax. Always a true and fast reading—short lever fall and adjustable damping device brings indicator to rest quickly.

Model 4104 SHADOGRAPH Scales are available in capacities from 4 oz. to 3 lbs., with sensitivities from 1/500 ounce, 50 milligrams, or one grain. Other models available for weighing a few milligrams up to 100 lbs. with sensitivity for any precision weighing problem. Write for details.

Exact Weight SCALES

Find us in your local 'Yellow Pages'

Sales and Service Coast to Coast

THE EXACT WEIGHT SCALE CO.
930 W. FIFTH AVE., COLUMBUS 8, OHIO
In Canada: P.O. Box 179, Station S, Toronto 18, Ont.

BETTER QUALITY CONTROL . . . BETTER COST CONTROL

For more details circle NED-517 H7 on enclosed inquiry slip

Commander

MULTI-ANGLE DRILL UNIT

- Compact—only 2¾" wide x 10¾" long
- Drills on close centers
- Low cost
- Simple, fast set-up

PRICE ONLY $125.00

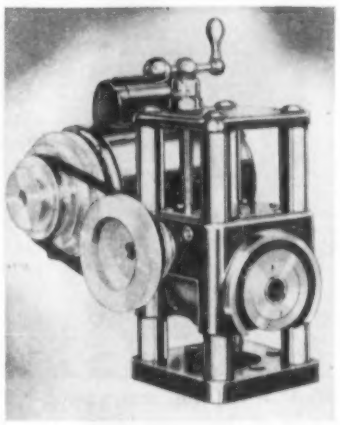
MULTI-ANGLE Drill unit is a complete, compact drill unit that easily adapts to special drilling problems where tooling space is limited. Ideal for angle drilling. Adapts to many power sources—flexible shaft, air or electric motors. Hydraulic spindle actuation—up to 4" stroke.

Write for complete details and name of nearby Commander Distributor

Commander MFG. CO.
4220 W. KINZIE ST., CHICAGO 24, ILLINOIS

For more details circle NED-518 H7 on enclosed inquiry slip

PORTABLE MACHINING UNIT
usable on machine tool or workpiece



Recently acquired by this company, the Versa-Mil is a portable precision machine tool. It operates at any angle in any required position or direction, either as an independent unit with its own feeds, or it is added to lathes, planers, millers, shapers or other machine tools. It is readily set-up and tooled for milling, boring, shaping, slotting, grinding and drilling operations. Powered by a ¾-hp electric motor, it delivers 13 speeds from 44 to 450 rpm. Made by **Dumore Co.**, 1370 Seventeenth St., Racine, Wis.

For more details circle NED-519 H7 on enclosed inquiry slip

AIR LINE FILTERS
drain collected liquid automatically

Simplified mechanism of improved Automatic-Drain air line filters assures positive discharge of the collected liquid when capacity is reached. Filters will operate on pressures as low as 5 psi for all models, and as high as 150 psi in the transparent bowl models and 250 psi in the metal bowl type. Improved centrifugal action removes moisture and oil emulsions. Interchangeable filter elements with 74, 64 and 25 micron ratings are available for removing abrasive solids from the air. Made by **C. A. Norgren Co.**, 3405 S. Elati St., Englewood, Colo.

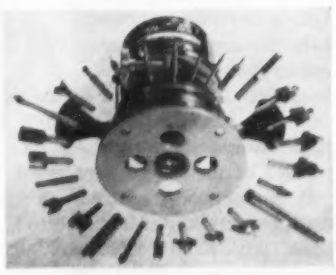
For more details circle NED-520 H7 on enclosed inquiry slip

OVERHEAD MAINTENANCE TRUCK
platform elevates to 15 ft

Width of 34 in. and turning radius of 3½ ft makes the 15-34 swivel type Lift-A-Loft overhead maintenance truck maneuverable in narrow aisles. Platform of the compact unit rises to 15 ft, allowing a working height of about 20 ft. After rising above the mast, the platform can swivel 360 degrees continuously to provide a 5-ft reach over obstructions. Truck contains a 24-v power supply, 32-gal water system for cleaning, an electric outlet for operating direct current power tools or a vacuum cleaner, and racks for carrying fluorescent tubes. Designed for one-man use, it has all operating controls on the platform. Made by **Lift-A-Loft Co.**, Dept. I, Box 1225, Muncie, Ind.

For more details circle NED-521 H7 on enclosed inquiry slip

ROUTER BITS
various types, sizes offered



Five carbide-tipped router bits which offer long life in production cutting of plywood and plastic laminates are now included in line of over 50 bits for Skil model 297 router. An arbor assembly permits use of shaping and slotting cutters with the router. One or two-flute bits of various diameters are made of high speed steel. Included are surfacing, core box, veining, dovetail, V-groove, rabbeting, combination-panel, rounding-over, cove, chamfering, beading and ogee bits. Made by **Skil Corp.**, 5027 Elston Ave., Chicago 30, Ill.

For more details circle NED-522 H7 on enclosed inquiry slip

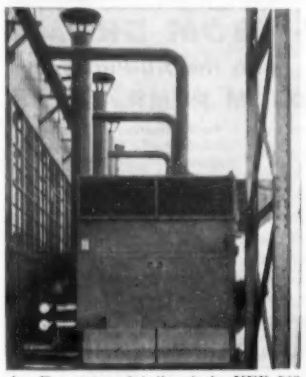
HOW YOU SAVE...

Getting Drier Compressed Air

● Save the cost of cooling water and you save the price of the Niagara Aero After Cooler (for compressed air or gas) in less than two years.

Extra, for no cost, you get drier compressed gas or air for your process. You get better operation and lower costs in the use of all air-operated instruments, machines, or paint sprays. You save expense for piping, pumping, water treatment and disposal.

Niagara Aero After Cooler cools compressed air or gas (evaporatively) below the temperature of surrounding atmosphere, with no further condensation in your air lines.



Write for Bulletin 130.

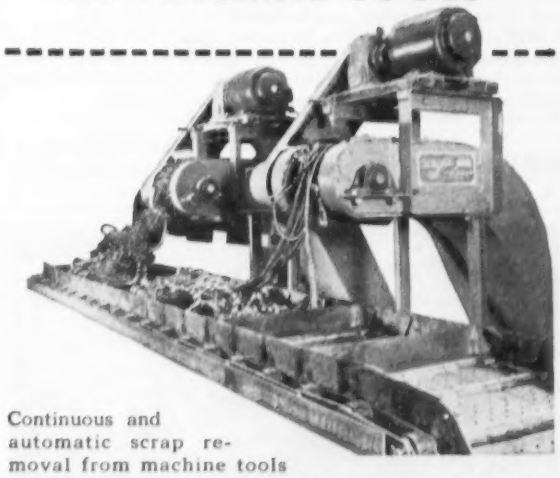
* * *

NIAGARA BLOWER COMPANY
Dept. ED-8
405 Lexington Ave., New York 17, N. Y.

For more details circle NED-523 H7 on enclosed inquiry slip

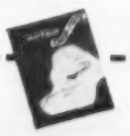
CHIP-TOTE

THE MOST ECONOMICAL MEANS OF CONTINUOUS REMOVAL OF CHIPS TURNINGS & BORINGS FROM ALL TYPES OF MACHINE TOOLS



Continuous and automatic scrap removal from machine tools provides many important savings, including elimination of machine down-time . . . greater productivity from both workers and machines . . . more efficient scrap handling.

Here's how it works. The CHIP-TOTE operates at a speed synchronized with that of the individual machine. Scrap is channeled onto the CHIP-TOTE conveyor belt, then carried clear of the machine for discharge into a tote-box or onto another conveyor system. Versatile CHIP-TOTE conveyors are available in a wide range of sizes and shapes to fit the needs of virtually all types of machines.



For complete information write today for your copy of Bulletin MF-640

MAY-FRAN ENGINEERING, INC.
1711 Clarkstone Rd., Cleveland 12, Ohio

For more details circle NED-524 H7 on enclosed inquiry slip

PUMP FLUIDS FROM DRUMS

Faster, Cleaner . . . with the All-Purpose

ALEMITE DRUM PUMP

Fully adjustable air operated delivery of any fluid and semi-fluid material! No mess or waste! No pressure in drum! Adjustable bung adapter fits any drum up to 55-gal. size . . . original drum remains sealed.

For lubricating oil, cutting oil, fuel oil • Pressure gun grease • Alcohol • Asphalt emulsions • Benzine • Carbon tetrachloride • Ethylene glycol • Gasoline Lacquer thinner • Shellac Kerosene • Vegetable oils Alemite Model 7216-A.

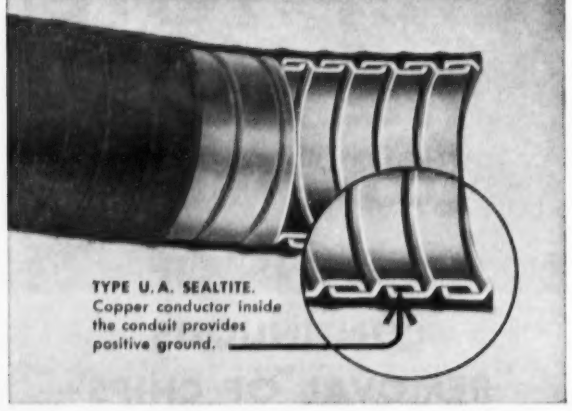
Write for free catalog and complete information to:
Alemite, Dept. HH-87, 1850 Diversey Parkway, Chicago 14, Illinois

ALEMITE REG. U.S. PAT. OFF. STEWART SW WARNER

Division of STEWART-WARNER CORPORATION

For more details circle NED-525 H7 on enclosed inquiry slip

FREE SAMPLE!



FLEXIBLE, LIQUID-TIGHT CONDUIT OUTLASTS ORDINARY METAL CONDUITS

Sealtite* flexible, liquid-tight electrical conduit is rapidly replacing rigid conduit in many plants for certain installations. It's easier, less costly to install (especially in cramped spaces) and actually outlasts ordinary metal conduits in moist or corrosive atmospheres. A tough, extruded polyvinyl jacket seals out water, dust and corrosive fumes . . . protects wiring from weather, oil and chemicals. Sealtite can be installed indoors or out; is ideal where conduit must flex or be moved, absorb vibration or meet misaligned outlets. Write for free sample and Booklet S-537 giving full information. Address: *The American Brass Company, American Metal Hose Division, Waterbury 20, Conn.*

*Trademark 57197

SEALTITE flexible, liquid-tight conduit . . . AN ANACONDA® PRODUCT

For more details circle NED-526 H7 on enclosed inquiry slip

20,000 AIR GAGE SPINDLES at LESS THAN A DIME EACH

ADJUSTABLE BALLJET SPINDLE KIT

In 5 minutes with this kit you can assemble a precision air gage spindle for any size hole between 1" and 3" diameter and with gage block accuracy. In increments of .0001", this kit gives you the equivalent of 20,000 gaging spindles at a cost of less than ten cents apiece—and not even one master setting ring is needed.

Exactly what is needed for short runs or to pinch hit in an emergency.

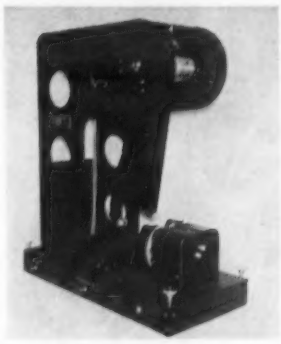
Get a free demonstration of Sheffield Adjustable Air Gage Tooling, or write to The Sheffield Corporation, Dayton 1, Ohio—Dept. 13.

7437

the SHEFFIELD corporation
manufacture and measurement for mankind

For more details circle NED-527 H7 on enclosed inquiry slip

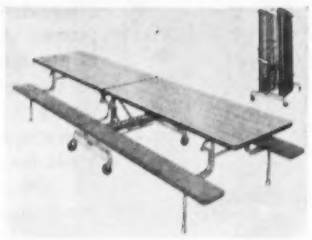
IMPACT TESTER for plastics, paper and rubber



Impact strength of plastics, paper, rubber, boxboard and similar materials is determined with this Pendulum Impact Tester by measuring the energy lost by its swinging pendulum when it breaks through a sample. Electric timer permits measuring the pendulum swing time to within 0.001-second. This time value is converted directly to impact strength on conversion tables supplied with the instrument. To simulate different kinds of impacts, tester uses a set of interchangeable striking heads. Detachable pendulum weights make possible a wide range of impact strength tests. Made by **United States Testing Co.**, 2020 Park Ave., Hoboken, N. J.

For more details circle NED-528 H7 on enclosed inquiry slip

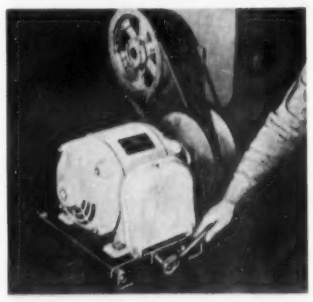
FOLDING & ROLLING TABLES offered with and without benches



Industrial cafeterias, in-plant feeding areas, and factory conference and recreation rooms are typical locations for restyled folding, rolling tables. Model B-Y is equipped with benches, while model L-B is designed for use with chairs. Both are center folding, have 4-in. rubber casters, and will withstand loads of 2¼ tons. Model B-Y is offered in 10 and 12-ft lengths and takes 8¼ sq ft when folded. It accommodates up to 16 adults. Model L-B is made in 8, 10 and 12-ft lengths, occupying 2¾ sq ft when folded. Made by **Sico Mfg. Co.**, Dept. NED, 5215 Eden Ave. S., Minneapolis 24, Minn.

For more details circle NED-529 H7 on enclosed inquiry slip

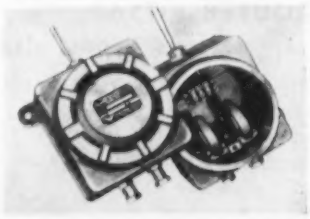
ADJUSTABLE MOTOR BASE for belt take-up, speed variation



Turning single screw of this Adjusto-Slide motor base compensates for belt stretch or permits speed adjustment when using variable pitch pulleys. It also facilitates changing belts without removing motor from base. Adjusting screw can be loosened and swung aside so that motor slides freely on base. Base also assures belt alignment. Sizes and mounting hole spacing accommodate NEMA frame sizes from 182 through 326V in old and new designations in motors rated from 1 to 30 hp. Base can be mounted in any position. Made by **American Pulley Co.**, 4245 Wissahickon Ave., Philadelphia 29, Pa.

For more details circle NED-530 H7 on enclosed inquiry slip

PRESSURE SWITCH designed for explosive atmospheres



Pressure difference between two variable pressures or a variable and a reference pressure are sensed by the model 932 differential pressure switch for explosive atmospheres. It is offered with four classes of proof pressure from 500 to 12,000 psi. Circuit is opened or closed upon increasing or decreasing pressure difference from 15 to 10,000 psi at any point within the adjustable range. Operation is in any position. Entire mechanism is mounted in a Crouse-Hinds explosionproof enclosure rated for Class I, Group C and D and Class II, Group E, F and G hazardous locations. An UL-approved snap-action, single-pole double-throw switching element for alternating and direct current is incorporated. Made by **Barksdale Valves**, Pressure Switch Div., Dept. NED, 5125 Alcoa Ave., Los Angeles 58, Calif.

For more details circle NED-531 H7 on enclosed inquiry slip

RAWSON® COUPLING

SAVINGS—on initial and replacement equipment costs through:—

Normal torque standard squirrel cage motors instead of special high torque motors

Smaller motors since same HP requirements are used for starting as for running

Elimination of expensive electrical starting equipment

Reduced electrical starting surges and peak demands

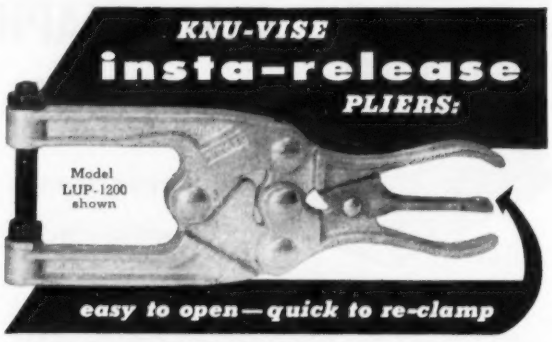
Standard applications to 1000 HP

Better motor efficiency, better power factor

RAWSON COUPLINGS
O. S. WALKER COMPANY, INC.
200 Rockdale St. • Worcester, Mass.

For more details circle NED-532 H7 on enclosed inquiry slip

KNU-VISE insta-release PLIERS:



insta-release—that's the name for the easy-action release-lever Knu-Vise pliers. Pliers open instantly re-clamp quickly—easily—without waste motion.

Maintains control over the free-swinging handle—permitting re-clamping with the same grip. Always remains within the hand span of the user.

Flip it over and you have instant release in the other direction. The Knu-Vise *insta-release* lever is available on P-1200 and P-1800 Series pliers.

Remember: Every model of the more than 150 *Knu-Vise* clamps is quick to lock—and quick to open. **Ask** for a demonstration.

Manufacturers of over 150 models of manually and air-operated clamps and pliers

KNU-VISE PRODUCTS LAPEER MANUFACTURING CO.
3062 DAVISON ROAD • LAPEER, MICHIGAN

WESTERN DIVISION 422 Magnolia, Glendale, California • CANADIAN DIVISION Higginson Engr. Hamilton, Ontario

For more details circle NED-533 H7 on enclosed inquiry slip

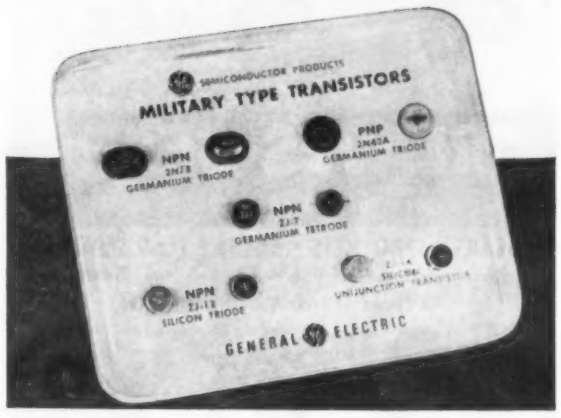
Webster DIRECT READING HYDRAULIC TYPE FORCE GAUGES

Measures electrode pressure on spot welders and roll welders. Makes compressive tests on forming, dimpling and upsetting operations. Also useful for weighing. Insulated contact surface prevents damage if welder is accidently fired. Easy setups, no delicate mechanisms, 5 ranges: 0-1000, 6000, 10,000, 20,000, 40,000 lbs. 3½" diameter gauge with accuracy to 1%. Reads directly in pounds—no conversion scales. Write for details.

Webster INSTRUMENT, INC.
Dept. N, 11856 Mississippi Ave., Los Angeles 25, California

For more details circle NED-534 H7 on enclosed inquiry slip

SMALL and FRAGILE PARTS....



These G.E. transistors encased in a Lite-TUFF box are easily handled and displayed, yet completely protected.

A Lite-TUFF box may solve the problem of sales visibility plus *rugged* protection for you.

Full information and Plot Plan Sheets sent upon request.

SHOE FORM CO. INC.
Dept. B-20, Auburn, New York

For more details circle NED-535 H7 on enclosed inquiry slip

Extra Powerful 3/8" Drill-

just $39.95

New Porter-Cable Drill Features:
Big Drill Performance —
Big Chuck Capacity!

Never before a drill with so much power and capacity at this low price!

The new Model 149 is specially designed to do drilling jobs not possible with standard ¼" drills. It features a heavy-duty Universal motor, extra large precision ground gear chuck, mansized pistol grip, ball bearings and much more. See and try the new Model 149 drill at your dealer's soon. Write for full information.

PORTER-CABLE Machine Company
7128 N. Salina Street
Syracuse 8, New York

Porter-Cable *Quality Power Tools*

saws • drills • sanders • routers • shapers • planes
In Canada: Porter-Cable Ltd., Box 5019, London, Ont. Canadian prices slightly higher.

For more details circle NED-536 H7 on enclosed inquiry slip

N-301-DI

CUT record keeping time IN HALF

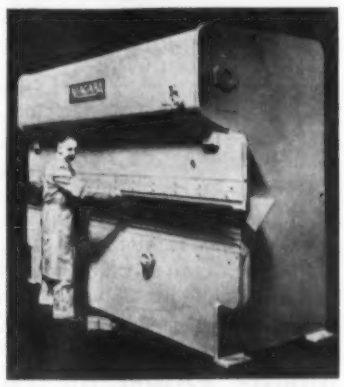
Here's a book filled with practical ideas for reducing costs and getting better results from card record systems . . . all proved by user experience! Send today for this multi-colored 20-page book on record keeping ideas.

WITH *Cardineer* ROTARY CARD FILES BY **Diebold** INCORPORATED
1008 Mulberry Rd., S. E.
Canton 2, Ohio

$64,000 QUESTION . . . PROTECTED BY DIEBOLD

For more details circle NED-537 H7 on enclosed inquiry slip

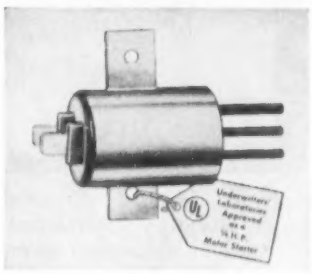
PRESS BRAKE
has power clutch, brake and treadle



Available in 30 and 50-ton models with 6 to 12 - ft bed lengths, line of press brakes features power clutch, brake and treadle. The electro - pneumatic friction clutch and brake work together for smooth controlled inching. Power treadle provides operator convenience. Totally-enclosed construction and one-piece frame with wrap-around crown afford clean lines. Machine can perform forming, bending, punching, blanking and many other operations. Made by **Niagara Machine & Tool Works,** Northland Ave. & Chelsea St., Buffalo 11, N. Y.

For more details circle NED-538 H7 on enclosed inquiry slip

MOTOR CONTROL
UL-approved for ¼-hp motors



Totally enclosed in a metal case to resist impact, dust and moisture, the Reloid plunger - actuated electromagnetic switch is available in a special UL - approved version for ¼-hp industrial motor starting. Three contact leads, plugged with molded Bakelite, have AMP or Douglas type terminals, and the coil has two AMP terminals. Control is available for 6 to 230 v, 60 cycles ac, or from 6 to 110 v dc. Contacts are rated up to 8 amp at 115 v, noninductive. Standard contact combination is single pole, either normally open or normally closed, double break or make. Size is 2 11/32 x 1 7/32 in. Made by **Guardian Electric Mfg. Co.,** 1621-I W. Walnut St., Chicago 12, Ill.

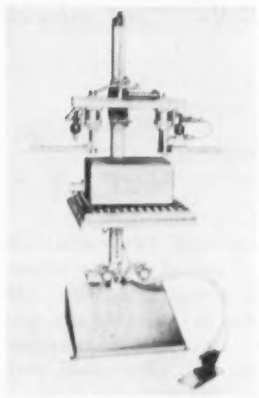
For more details circle NED-539 H7 on enclosed inquiry slip

DC VOLTMETERS
automatically digitize input data

Either of two direct current switch modules combines with an Electro Instruments universal power module to provide a digital voltmeter for automatically digitizing input data to 0.01-per cent accuracy. Four and five-digit measurements on both models are displayed digitally with 1-in. high, edge-lighted numerals. Contact closures operate machine output equipment. With the appropriate power module a 0.1 to 1000-v range is possible in a single instrument. When combined with a preamplifier module, sensitivity is increased to 10 microvolts. Made by **Electro Instruments, Inc.,** Dept. A, 3794 Rosecrans Ave., San Diego 10, Calif.

For more details circle NED-540 H7 on enclosed inquiry slip

CONTAINER STAPLER
staples 1200-1400 cartons per hour

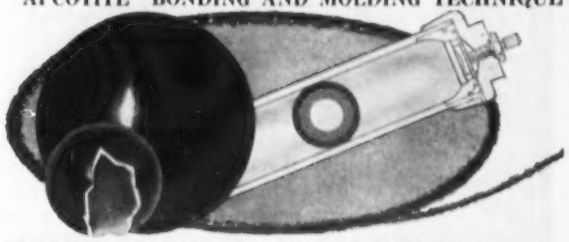


Tops or bottoms of corrugated and fiber-board boxes of any style can be stapled at rate of 1200 to 1400 per hour with model CSC-1 Duplex stapler, after they have been packed. Unit operates on compressed air at minimum of 60 psi. Variety of carton size or style is handled. Table height from floor can be varied from 20½ to 29⅜ in. Steel table measures 22 x 22 in. Roller conveyor or caster top tables are available at extra cost. Draw bar from which head carriage is operated has 4-in. vertical movement operated by an air cylinder. Made by **Container Stapling Corp.,** 310 N. Park Ave., Herrin, Ill.

For more details circle NED-541 H7 on enclosed inquiry slip

THE SHAPE OF THINGS IN MOLDED RUBBER

RUBBER GETS ON THE BALL VIA "APCOTITE" BONDING AND MOLDING TECHNIQUE



The ball shown here is a spherical piston in a hydraulic accumulator of revolutionary design. A problem faced by the manufacturer was the pressure within the cylinder causing the rubber on the sphere to flow and pull away from the aluminum surface of the ball. Acushnet was asked to produce a better bond and covering.

Using a preform mold prior to curing and eliminating pins or location rods to hold the ball was the first step in getting around this problem. Final curing of the rubber covering included the use of "APCOTITE" rubber-to-metal bond. Result was a layer of rubber ⅛" thick, concentrically perfect, bonded to the aluminum insert.

"APCOTITE" bonding to metal is exclusive with Acushnet and provides for high strength bond of rubber, synthetic polymers, silicone and plastics to all metals for the life of the part. Send for informative brochure.

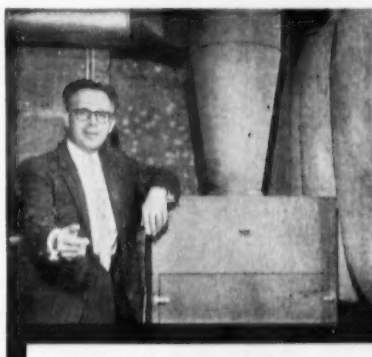
Specify "APCOTITE"!

Acushnet ACUSHNET PROCESS COMPANY
NEW BEDFORD, MASSACHUSETTS

... *Precision Molded* RUBBER, SILICONES - "APCOTITE" BONDING

Address all communications to 782 Belleville Ave., New Bedford, Mass.

For more details circle NED-542 H7 on enclosed inquiry slip



"TORIT dust collectors saved us $3,000."

FREE BOOKLET shows you how to trap harmful dust better at less cost with TORIT.

Your plant can have the same initial savings and cost-cutting operation now enjoyed by the Sico Manufacturing Company, national producers of tables and seating equipment. Sico President, Kermit H. Wilson states, " . . the lowest bid we had for a central dust collection system of minimum capacity was just under $4,000. Our $900 Torit installation has completely solved our dust problem and gives us greater flexibility than would be possible with a central system." There's a TORIT Collector to meet every type of dust problem, why not investigate?

FREE facts on TORIT DUST COLLECTORS that reduce maintenance costs, up production, improve employee morale. Write today to:

TORIT MANUFACTURING CO.
287 Walnut Street, St. Paul 2, Minn., Dept. 202

For more details circle NED-543 H7 on enclosed inquiry slip

Cut Maintenance $600 yearly per unit with WORLD Hand Dryers

Best By Test!
Factory Guaranteed!

THOUGHTFUL BUYERS USE WORLD!
Marshall Field & Co.
Northwestern University
Chrysler Corp.
Union Pacific Railroad
Libby-Owens-Ford
Frick Building
U. S. Army
U. S. Navy
Gimbel Brothers
Howard Johnson's
Alton, Ill. Schools
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Gulf Oil

Each high speed WORLD Hand Dryer can save up to $600 per year on paper and maintenance . . . dry hands fast as towels . . . keep washroom clean and sanitary.

Prove it to yourself under our FREE trial offer! Full details on request.

MAIL THIS COUPON NOW!

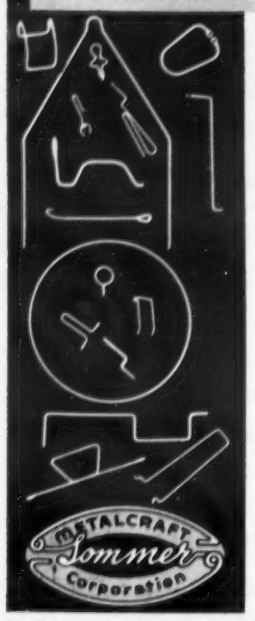
WORLD DRYER CORPORATION
616-22 W. Adams St., Chicago 6, Ill.

Gentlemen: Without obligation send me copies of letters from users, also folder of facts including cost saving figures and full details on your FREE-TRIAL offer.

My name _____
Firm name _____
Street _____
City _____ State _____

For more details circle NED-544 H7 on enclosed inquiry slip

WIRE PARTS and PRODUCTS
Fast . . . Accurate . . . Low Cost



The forms shown here are only a few we make. They indicate our broad experience with different shapes, materials, finishes, welds.

Automatic wire-forming machines produce precision work on a volume basis at competitive prices, and speed up deliveries.

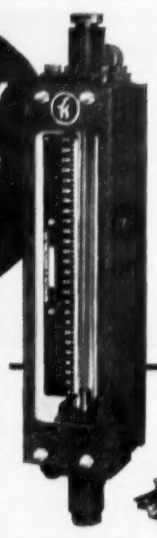
Finishes include baked enamel, cadmium, brite zinc, brite nickel, nickel chrome and mill finishes —in both barrel and fully automatic equipment.

Inquiries are invited and will be answered promptly. Send sample, blueprint or drawing. We will submit recommendations and quotations without delay.

SOMMER
METALCRAFT CORPORATION
200 POSTON DRIVE
CRAWFORDSVILLE, INDIANA

For more details circle NED-545 H7 on enclosed inquiry slip

FAST DELIVERY *on Rotameters and Flow Indicators*



Purge Rotameter

"Safeguard" Rotameter

Rotary Flow Indicator

SK makes a complete line of Rotameters and Flow Indicators. For quick delivery the company stocks popular types and sizes. If you need action fast, contact us stating your requirements. We'll let you know if a stock item is available and, if not, what we can do to expedite delivery. If you want an idea of types available, write for Bulletin 18RA. It pictures and describes our line.

Schutte and Koerting COMPANY
MANUFACTURING ENGINEERS
2227 STATE ROAD, CORNWELLS HEIGHTS, BUCKS COUNTY, PA.

Jet Apparatus: Ask for Condensed Bulletin J-1. | Rotameters & Flow Indicators: Ask for Condensed Bulletin 18-RA. | Valves: Ask for Condensed Bulletin V-1. | Heat Transfer Apparatus: Ask for Condensed Bulletin HT-1. | Gear Pumps: Ask for Bulletin 17-A.

For more details circle NED-546 H7 on enclosed inquiry slip

ANOTHER *PANNIER* MASTER MARKER!

New Roto-Pin type lock is integral part of *all* Pannier Supreme Holders . . . eliminates loose, bent, dropped, or lost pins . . . flip it open to change type . . . flip it back to securely lock type in clear-marking position.

Write for complete data.

PANNIER'S SUPREME HOLDER WITH ROTO-PIN LOCK

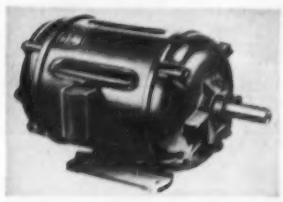
Safe, fast type changing. Holder in variety of styles. Machined from High-Grade Bar Tool Steel. Hardened anvil maintains type alignment. Striking Head of Tool Steel . . . Replaceable to add long service life to Holder.

BIRTHMARKED MATERIALS

MARKING DEVICES
THE PANNIER CORPORATION
301 Pannier Building • FAirfax 1-5185 • Pittsburgh 12, Pa.
Offices: Los Angeles • Chicago • Cleveland • Philadelphia

For more details circle NED-547 H7 on enclosed inquiry slip

ELECTRIC MOTOR
in 1 to 5-hp induction types



Now built in new NEMA 182 through 254U frames, line of repulsion-start induction-single-phase motors is offered in four-pole ratings of 1 to 5 hp. Placing these motors in the new frames makes them interchangeable with capacitor-start and small polyphase motors of the same ratings. They will start repeatedly under heavy load with low current and minimum flicker. Made by **Wagner Electric Corp.**, 6382 Plymouth Ave., St. Louis 14, Mo.

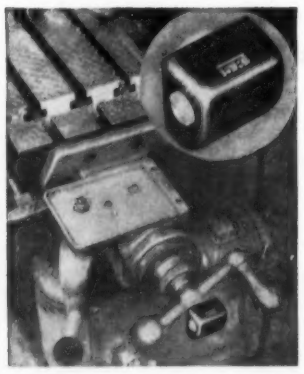
For more details circle NED-548 H7 on enclosed inquiry slip

WIPING TOWEL DISPENSER
automatically delivers 5-towel pack

Placed at any convenient location in plant, this automatic Y-Ping Towel Dispenser delivers a bundle of five clean wiping towels each time a worker deposits five dirty towels in the machine. This assures each worker an ample supply of shop towels without time loss involved with normal tool crib or other dispensing-control method. Towel loss or pilferage is minimized. Built-in counter provides for effective inventory control and is a check on the supplier. Machine holds 1000 clean Y-Ping towels, has built-in safety switches and fire extinguisher, and signals when supply is nearly depleted. Machine will not accept soiled towels when it is empty. The 30 x 30 x 63-in. steel cabinet is finished in white enamel. Dispenser and towel service is leased to users by **Industrial Wiping Cloth Co.**, 29-30 41st Ave., Long Island City 1, N. Y.

For more details circle NED-549 H7 on enclosed inquiry slip

LEAD SCREW COUNTER
mounts on machine tool handles

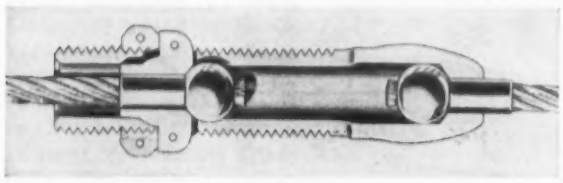


Usable on milling and other machine tools, this lead screw revolution counter provides for accurate positioning of table or tool and also will indicate travel. Single glance discloses the number of turns operator has made from a starting position in either direction. Counter is readily set to zero to establish reference or starting point. Device is made in various thread sizes to fit any lead screw handle bolt. Price is $39.50. Made by **Pacific Transducer Corp.**, 11836 W. Pico Blvd., Los Angeles 64, Calif.

For more details circle NED-550 H7 on enclosed inquiry slip

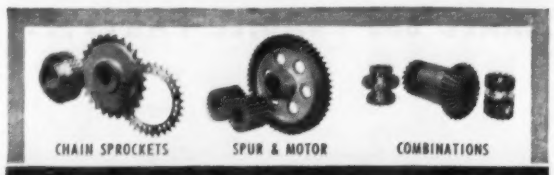
SHORT TURNBUCKLE
for 1/16 to 7/32-in. wire cables

Having constant length for any adjustment, Cabuckle turnbuckle is only one-third as long as the standard short AN type. It can be installed and adjusted



with ordinary tools, eliminates cable twist and can be lock-wired. One cable is attached to the sleeve and the other to the forged cross-piece with AN swaged ball terminals. Tension is adjusted by advancing the nut on the sleeve. Available adjustment is visible at all times. Aluminum, alloy steel and stainless steel constructions are available for various conditions of weight-savings, load or temperature. Sizes accommodate 1/16 to 7/32-in. diameter flexible cables. Made by **Voi-Shan Mfg. Co.**, Culver City, Calif.

For more details circle NED-551 H7 on enclosed inquiry slip



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All Types of Non-Metallic Materials

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For more details circle NED-552 H7 on enclosed inquiry slip

For maximum protection against leakage and corrosion . . .

Bulletin No. 5004 outlines the superior chemical handling qualities of this "application engineered" transfer pump. Write for your free copy today.

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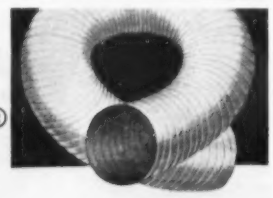
For more details circle NED-553 H7 on enclosed inquiry slip

facts about Flexflyte®



that will help you solve your ducting problems

What is Flexflyte? It is a very lightweight, reinforced ducting made of a spring steel wire helix covered with coated fiber glass or a cotton fabric and bound with a fiber glass cord.

What are its applications? It is used for transmission of hot or cold air, fume removal, dust collection, materials handling, and the like.

How flexible is Flexflyte? It will make bends up to 180° without buckling.

What are its temperature ranges? From minus 120°F. to plus 650°F.

What pressures will Flexflyte handle? Internal pressures to 70 psi and external pressures to 15 psig.

Is it resistant to flame and abrasion? Exceptionally so, and it will not support combustion.

What about installation? Flexflyte is quickly, easily installed around corners and equipment parts by means of metal clamps. No elbows or fittings are required.

Can Flexflyte be engineered for unusual applications? Yes. Special fabrics, coatings, connections, lengths, diameters and enlarging or reducing ends are available. Our special Silicone Department is prepared to meet any requirement for silicone ducting.

How can I make sure that Flexflyte will solve my problems? Write, outlining your requirements, to Dept. 28.

Flexible Tubing CORPORATION
GUILFORD, CONNECTICUT • LOS ANGELES 64, CALIFORNIA

For more details circle NED-554 H7 on enclosed inquiry slip

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FOSTER Quality RELAYING RAILS

Lower installation and maintenance costs—handle more cars better.

Depend on Foster to match sizes and specifications to your exact requirements on any track job. Foster's nationwide warehouses also stock every Section of New Rail, 12# thru 175#, Switch Material and Track Accessories.

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free!

GUIDE TO BETTER WORM GEAR SELECTION

Here's complete information on Foote Bros. famous worm gear sets—plus simple-to-follow selection procedure and helpful design suggestions. Engineering Manual SW No. 1 is your guide to proven worm gear performance. Write for it today!

FOOTE BROS.
Better Power Transmission Through Better Gears

FOOTE BROS. GEAR AND MACHINE CORPORATION
4569 S. Western Blvd., Dept. NE,
Chicago 9, Illinois

For more details circle NED-556 H7 on enclosed inquiry slip

Mail Cart!

Put efficiency in your mail operation! This double-deck polished aluminum mail cart by Chesley lets your mail department categorize incoming mail for quick, error-free delivery. Lower basket for out-going mail. Both baskets are removable.

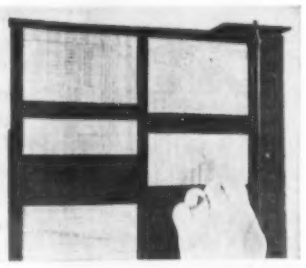
Write for free brochure — or, better still — order today!

MODEL LS-2 (Legal Size) 26½" L x 19" W x 29½" H
(File Folders Not Included)
Shipping Weight — 33 lbs. $45.00 F.O.B. DETROIT

CI CHESLEY INDUSTRIES
Write Dept. H
7731 LYNDON STREET
DETROIT 38, MICHIGAN

For more details circle NED-557 H7 on enclosed inquiry slip

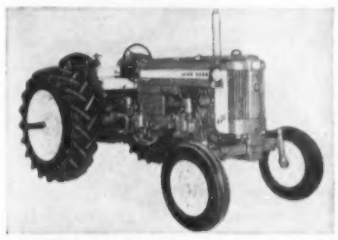
INDEX BOARD
for quick reference listing uses



As many as 1800 item listings are held by this Flex-N-Dex quick-reference index board. This all-steel swing type two-side board holds important records indexed on flexo-line strips. It can be used for indexing production control records, piece-work rates, personnel records or as a cross-reference of parts numbers and tool and order numbers. Board has four columns with a visibility of 5 in. each. It swings on a bracket that is fastened to the wall. Listings are typed on scored sheets of straight-grain wood veneer with special papers laminated to each side. Sheets separate readily into strips which are easily inserted in or removed from board. Strips are made in three sizes and in buff and eye-rest green. Made by **Victor Adding Machine Co.**, McCaskey Industrial Div., 3900 N. Rockwell St., Chicago 18, Ill.

For more details circle NED-558 H7 on enclosed inquiry slip

UTILITY TRACTOR
accepts front or rear accessories



Various front and rear mounted working equipment such as backhoes, loaders and trenchers are handled by this 420 Special Utility tractor. The three-point hitch takes standard tools. Machine delivers approximately 30 hp and is designed for stability under load. Standard equipment includes adjustable rear wheels and dual Touch-o-matic hydraulic control. Power steering, speed-hour meter, foot throttle, direction reverser, remote hydraulic system and five-speed transmission are among the optional equipment. Made by **John Deere Industrial Div.**, Dept. INR-1, Moline, Ill.

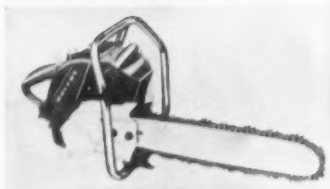
For more details circle NED-559 H7 on enclosed inquiry slip

ELECTRIC BRAKE
mounts on any C-face motor

Redesigned series E electric disk brake mounts without disassembly on any standard NEMA C-face motor. Also available are brackets for foot mounting as a separate unit. Taper lock bushing assures pinion retention and simplifies motor mounting without change in the original factory adjustment. An air gap limiter protects against coil burn-out. Infrequent magnet assembly gap adjustment, low rate springs which maintain constant torque and optional mechanical release with automatic or manual reset are features. Brake has ratings from 3 to 250 ft-lb. Made by **Safety Industries, Inc.**, Star-Kimble Industrial Motor Div., 1287 Dixwell Ave., Hamden, Conn.

For more details circle NED-560 H7 on enclosed inquiry slip

CHAIN SAWS
three new series augment line



Series 5500 direct drive chain saw has a lightweight engine with 6.46 cu in. displacement, right hand starter, spark arrester muffler and built-in air filter. Two heavy duty geared saws, the 5600 and 5700 series, have chain speeds of 1530 and 980 fpm, respectively. Molded gears in these two series are interchangeable. Features common to entire chain saw line are pistol grip rear handles, automatic clutch, hard nose guide bars, multiposition front handle, and range of bar and chain lengths. Three new saws increase line to seven series. Made by **Food Machinery & Chemical Corp.**, Bolens Products Div., 247 S. Park St., Port Washington, Wis.

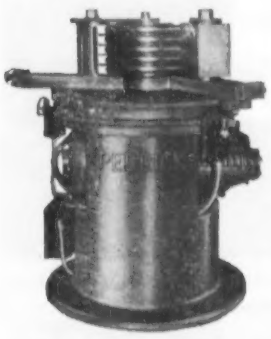
For more details circle NED-561 H7 on enclosed inquiry slip

extra!

ALL ABOUT THE LATEST BENDING METHODS

Let Pedrick show you how the latest methods of bending pipe, tube and structural metal—on a job or production basis—can save you money.

For full information on Pedrick Production Benders, write PEDRICK TOOL AND MACHINE CO 3640 N. Lawrence St., Phila. 40, Pa. Dept. 6.



FREE "PEDRICK LINE" BULLETIN, WRITE TODAY.

PEDRICK production benders

For more details circle NED-562 H7 on enclosed inquiry slip

the HOFFCO-VAC 35 outsweeps the field in the 5 h.p. range

Hoffman's modern, streamlined "Hoffco-Vac" 35 portable vacuum-cleaning unit offers you:—50% greater dust capacity (4.4 cu. ft.) . . . easy handling and compact design . . . higher vacuum (6.5 ins. mercury) . . . longer effective hose reach (one 75-foot length or simultaneously two 50-foot lengths) . . . easy maneuverability by one man even in crowded areas . . . swing-hinged inspection door with 16-inch diameter . . . pull-away dust container with its own three casters and easy-pour back . . . pre-lubricated outboard bearings, mounted in rubber . . . and roller-bearing, rubber-tired wheels. Write today for bulletin M-135, giving full technical information on this "big" little cleaner, to:—

AIR APPLIANCE DIVISION
U.S. HOFFMAN MACHINERY CORP.
Dept. NED, 103 Fourth Avenue, New York 3, N. Y.

For more details circle NED-563 H7 on enclosed inquiry slip

Gage small parts quickly and economically with the KODAK CONTOUR PROJECTOR, Model 8

Here's a portable, bench-type comparator that gives you the speed, economy, and precision of optical gaging at moderate cost. With little training, operators can inspect all sorts of stampings, screw machine and similar parts completely, accurately, and quickly.

The Model 8 can be used for either vertical or horizontal projection with the shadow image always erect and right-reading. Interchangeable lenses give a choice of any of six for magnifications from 10× to 100×.

For details on the Kodak Contour Projector, Model 8, and how you can use it, send for the booklet, "Projection Gaging with Kodak Contour Projectors." Write *Apparatus and Optical Division.*

EASTMAN KODAK COMPANY
Rochester 4, N. Y.

the KODAK CONTOUR PROJECTOR

Kodak

For more details circle NED-564 H7 on enclosed inquiry slip

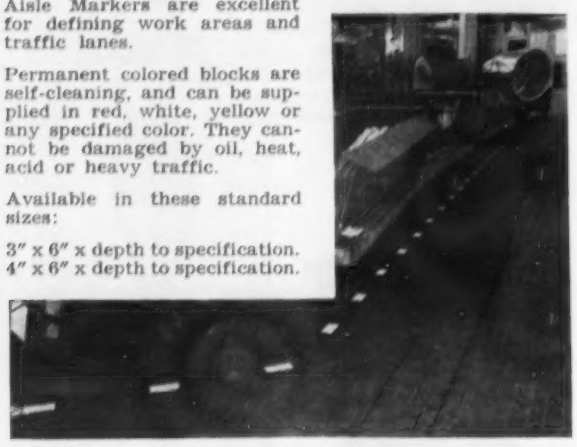
Colored AISLE MARKERS
Eliminate Aisle Marking Problems

Hayden-Shaw Permanent Line Aisle Markers are excellent for defining work areas and traffic lanes.

Permanent colored blocks are self-cleaning, and can be supplied in red, white, yellow or any specified color. They cannot be damaged by oil, heat, acid or heavy traffic.

Available in these standard sizes:

3" x 6" x depth to specification.
4" x 6" x depth to specification.



The Martin Company of Baltimore, Maryland, is using permanent colored aisle markers with creosoted wood block flooring as illustrated.

HAYDEN-SHAW MINERAL PRODUCTS
7814 W. Jefferson
Detroit 17, Michigan

For more details circle NED-565 H7 on enclosed inquiry slip

SPECIFICALLY ENGINEERED ...NEVER MERELY ADAPTED ...FOR EACH PARTICULAR TYPE OF APPLICATION

WRITE FOR THE HANSEN CATALOG

● Here's an always ready reference when you want information on couplings in a hurry. Lists complete range of sizes and types of Hansen Quick-Connective Couplings. Write for your copy.

Representatives in Principal Cities

THE HANSEN MANUFACTURING COMPANY
4031 WEST 150th STREET • CLEVELAND 11, OHIO

For more details circle NED-566 H7 on enclosed inquiry slip

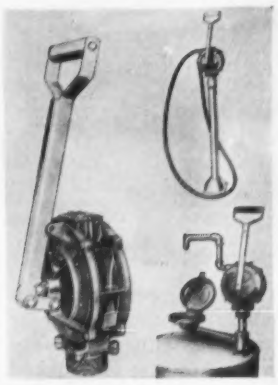
Your Idea-Sparker on Electric Cable Control...

Write for your free copy of Gleason Catalog, Industry's most complete "Idea Book" on profitable application of Gleason Spring Reels, Motor Reels, Hand Reels — for electric cable, cord, and hose Control for all equipment in motion. Or write for engineering suggestions.

Gleason Reel Corp
738 N. Plankinton Ave., Milwaukee 3, Wis.
SPRING REEL HEADQUARTERS FOR ALL INDUSTRY

For more details circle NED-567 H7 on enclosed inquiry slip

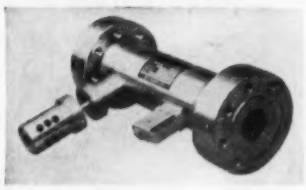
DOUBLE-ACTION HAND PUMP
for pipe lines or as barrel pump



Cutting and lubricating oils, grease, paints, solvents, chemicals and other liquids are safely handled or dispensed by this DD-1 diaphragm type double-action hand pump. Installable in existing pipe lines or usable as barrel or pedestal pump, it delivers 20 gallons per 100 strokes. Pumping action is continuous with both the push and pull strokes. Buna N self-spring loaded internal valves, double diaphragm with integral O-rings, nylon shaft bearing and die cast aluminum body are unaffected by most chemicals. An 8-ft Buna N hose, nozzle and 8-gallon flow meter can be furnished. A foot valve is available for lifts of over 10 ft. Made by **Wayne Pump Co.**, 118 Tecumseh St., Ft. Wayne, Ind.

For more details circle NED-568 H7 on enclosed inquiry slip

DIGITAL MASS FLOWMETER
for extreme temperature conditions



Accurate measurement of true mass flow rate of liquids, vapors, gases or multiphase combinations over temperatures ranging from those of cryogenic fluids (−423° F) to high temperature gases (1000° F) is possible with the Digimaf, a digital mass flowmeter. Its change-of-momentum principle makes use of speed of rotation of the impeller as the signal proportional to mass flow rate. Change in environmental conditions does not affect accuracy. Unit operates on 115-v, 60-cycle supply and is suited for use in laboratory, pipe lines, process industries and other manufacturing and distribution applications. Components are mass flowmeter transmitter, servo amplifier and digital readout device. Digital output can also be fed directly into a digital data processing system. Made by **Inertial Instruments, Inc.**, Dept. S-1, 1738 Colorado Ave., Santa Monica, Calif.

For more details circle NED-569 H7 on enclosed inquiry slip

TERMINAL CRIMPING TOOL
also shears bolts, strips wire

Multipurpose Crimcut tool is designed to attach solderless terminals by crimping, shear bolts, cut wire and strip insulation from No. 22 to 10 wire. It is 8 in. long, chrome plated and has red plastic grips on handles for comfort and insulation. Size of wires is engraved opposite each crimping slot. Five separate openings are for shearing 4-40, 6-32, 8-32, 10-32 and 10-24 machine screws or bolts without damage to threads. Price is $3.95. Made by **Vaco Products Co.**, 316 E. Ontario St., Chicago 11, Ill.

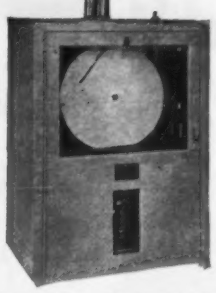
For more details circle NED-570 H7 on enclosed inquiry slip

CARTON STAPLER
fastens filled boxes from outside

Neat, effective closure of thick or thin corrugated board cartons is made with this portable, hand-operated D14 Boxlok stapler. It fastens the tops of filled containers entirely from the outside with wide-crown staples. One twist of quick-adjust knob regulates both the depth of staple penetration and tightness of the clinch. It will drive 1½-in. wide, 0.040 x 0.090-in. staples with ⅝ or ¾-in. leg lengths. Cast aluminum body contributes to ease of handling. Made by **Bostitch**, 1037 Mechanic St., Westerly, R. I.

For more details circle NED-571 H7 on enclosed inquiry slip

ARCCO-ANUBIS 'Dry-Air GAS GRAVITOMETERS



This new Arcco-Anubis Dry Air Gas Gravitometer determines and records specific gravity of gases automatically corrected to the humidity content of the air. The difference in weight between a column of GAS and equal column of DRY AIR is measured. This ratio represents the true specific gravity of the sample.

One bell of the instrument is filled with gas which is being measured, and the other bell is filled with dry air. Otherwise, except for the new instrument having one column for gas and one column for dry air, the unit is identical in operation to the standard gas gravitometer When calibrated and properly installed, these instruments require little attention other than to wind the clock, ink the pen, and change the chart. Send for bulletin No. 101-R3.

AMERICAN RECORDING CHART CO.
3113 E. 11th St. • Los Angeles 23, Calif.

Available for Early Delivery

For more details circle NED-572 H7 on enclosed inquiry slip

MEN and TRUCKS CAN WORK FULL SHIFTS!

eliminates downtime due to battery failure

Several ounces of LIFETIME-CHARGE in each cell of your electric truck batteries prolong battery use between chargings and lengthen over-all battery life. LIFETIME-CHARGE constantly dissolves lead sulphate that forms on battery cell plates, keeping more plate area exposed and keeping batteries nearer full charge.

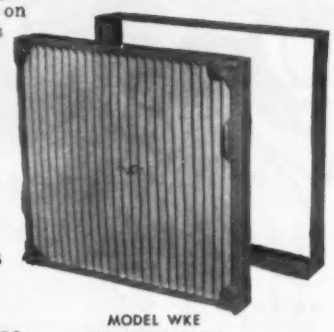
In a four month test at a large automotive stamping plant, batteries treated with LIFETIME-CHARGE lasted four to five times longer between chargings than untreated batteries. For complete details, write Magnaflo Company, Inc., Central Tower, Youngstown, Ohio, or phone RIverside 4-3557.

MAGNAFLO COMPANY, INC.
CENTRAL TOWER • YOUNGSTOWN, OHIO

For more details circle NED-573 H7 on enclosed inquiry slip

FREE LATEST STAYNEW FILTER INFORMATION

Complete engineering and application data on all Staynew Filters is yours for the asking. Be sure to specify Bulletin Number.



INTAKE FILTERS Bulletin 100
PIPE LINE FILTERS Bulletin 200
LIQUID FILTERS Bulletin 300
AUTOMATIC FILTERS Bulletin 500
DRY TYPE FILTERS Bulletin 600
VISCOUS PANEL FILTERS Bulletin 700
ELECTROSTATIC FILTERS Bulletin 400

MODEL WKE
DRY PANEL FILTER

Operates with any filtering material that comes in sheet form and can be crimped. Preformed filtering elements are available for quick and easy replacement when necessary.

Special filters are also available . . . consult your local Dollinger representative. Dollinger Corporation, 49 Centre Park, Rochester 3, N.Y.

STAYNEW FILTERS — DOLLINGER
FILTERS FOR EVERY INDUSTRIAL NEED

For more details circle NED-574 H7 on enclosed inquiry slip

Let me give you this NEW fact-packed forging guide

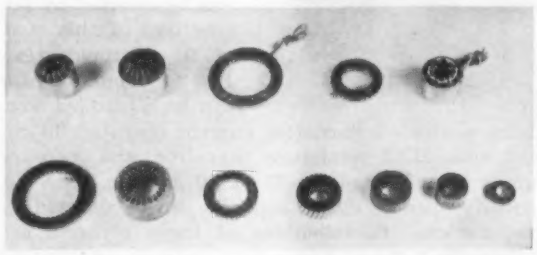
If you buy or specify forgings, write for this fact-packed AmForge book. Its 16 pages show how your company can benefit from better AmForge research, engineering and control. You'll see that all this adds up to the kind of "service" you need for production quality and economy. Either circle the number on the magazine service card or write AmForge, Dept.NED-8,157 N. Wacker Dr., Chicago 9, Illinois.

AMFORGE DIVISION — American Brake Shoe Company

For more details circle NED-575 H7 on enclosed inquiry slip

STATOR LAMINATION STACKS made by molded encapsulation

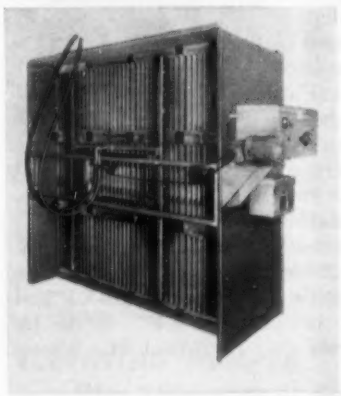
Almost unlimited sizes and configurations of stator lamination stacks can be produced with good electrical performance and at low cost by the molded



encapsulation process. Laminations are dry stacked and molded with an epoxy resin to provide a physically strong, high dielectric mechanical bond and insulation. Encapsulated stacks go directly to winding with no further insulation. Thickness and configuration are accurately controlled to provide a consistent area for winding. They have high resistance to moisture and oils. Made by **Cedar Engineering, Inc.**, Dept. C, 5806 W. 36th St., Minneapolis 16, Minn.

For more details circle NED-577 H7 on enclosed inquiry slip

ELECTRONIC AIR CLEANER removes 97 per cent of dust, dirt, pollen and smoke from air in plants



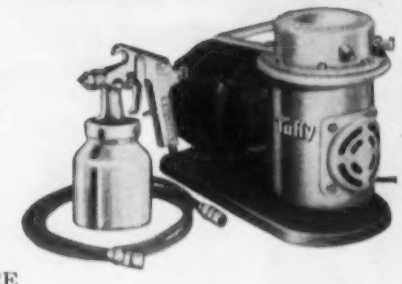
Marked reduction in cleaning and maintenance costs as well as optimum working conditions are reported by users of this Hi-C line of electronic air cleaners. Designed for installation in commercial and industrial forced - air heating, cooling or ventilating systems, these cleaners are compact and relatively low in cost. They remove up to 97 per cent of dust, dirt, pollen, smoke and other particulate matter from the air as it passes through the cleaner, according to tests based on the National Bureau of Standards dust spot procedures. In year-around air conditioning systems, unit assures fresh, clean air.

Cleaners are available in wide range of capacities and models for either vertical or horizontal flow. They can be equipped with automatic or manually controlled self-cleaners to remove the collected dust and dirt. Ionizing electron barrage causes minute dust particles to be attracted to and held by the electrically charged collecting plates. Made by **Electro-Air Cleaner Co.**, 1284 Reedsdale St., Pittsburgh 33, Pa.

For more details circle NED-578 H7 on enclosed inquiry slip

DEVILBISS PROFESSIONAL SPRAY OUTFIT

for fast, full-covering, protective coating



DeVilbiss' NCE Tuffy Spray Outfit is lightweight, yet withstands rugged commercial use. Makes painting hard-to-reach areas easy. Plugs into any 115 AC circuit. Gun sprays all common coating materials.

DeVilbiss spray method is four times faster than brushing! Permits heavier paint film for better wear, better hiding. One coat usually does the job of two. Write for free Maintenance Spray Equipment Catalog.

DEVILBISS — THE DEVILBISS COMPANY, Toledo 1, Ohio
Barrie, Ontario • London, England
BRANCH OFFICES IN PRINCIPAL CITIES

For more details circle NED-579 H7 on enclosed inquiry slip

EXTRA STAMINA built into Baker gas trucks makes them ideal for metalworking plants

One look at any Baker "FG" gas-powered fork truck will show you why it is the most rugged in its class. But there are many things you don't see: the heavy-duty engine, designed expressly for industrial truck service; the sturdy Timken-power axle—integrated with engine, transmission and clutch into a single unit, engineered for trouble-free long life; the Baker wide-angle steering axle—mounted longitudinally in jumbo rubber blocks to provide stability and absorb road shocks; the all-welded box-type frame, the channel-frame uprights with bronze inserts to minimize sliding wear and add security in extended position.

These are but a few of the built-in features that mean more efficient performance in metalworking plants—where the work is heavy and the going rough.

Baker Gas Trucks are available in 2,000 to 7,000 pound capacities. For specific information, contact your nearest Baker sales office or write us direct.

Baker industrial trucks — THE BAKER-RAULANG COMPANY
1245 WEST 80th STREET • CLEVELAND 2, OHIO
A Subsidiary of Otis Elevator Company
7G2 E

For more details circle NED-580 H7 on enclosed inquiry slip

KIDDE'S NEW DRY CHEMICAL EXTINGUISHER... FASTEST WAY TO KILL FIRE

Here from Kidde is the newest, the fastest, the easiest-to-operate pressurized dry chemical fire extinguisher. Exciting new features include: extra-large aluminum handle (operate with gloves on); center-balanced (easier to carry); recessed pressure gauge (tells if unit is charged, ready for use); simplified directions . . . "Remove Horn" (trigger safety lock releases), "Pull Trigger" (instantly dry chemical kills fire). Comes in 20 and 30-lb. capacities. UL-approved. Require only 225-250 psi charging pressure. Write Kidde today for name of nearest distributor.

Kidde

Walter Kidde & Company, Inc.
824 Main Street, Belleville 9, N. J.
Walter Kidde & Company of Canada Ltd., Montreal—Toronto

For more details circle NED-576 H7 on enclosed inquiry slip

"DOWN TIME" *can be profitable . . .*

7536-TE

WITH *Servisafe* POLES

Bring luminaires and maintenance costs down-to-earth with "Servisafe" Metal Poles! One man . . . standing on the ground . . . can lower, service, then reposition pole-mounted lights *within minutes* . . and without hazard or assistance.

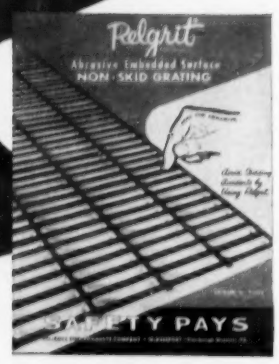
WRITE FOR BULLETIN WPH-54 FOR DETAILS.

THE THOMPSON ELECTRIC CO.
1138 Power Avenue
Cleveland 14, Ohio

For more details circle NED-581 H7 on enclosed inquiry slip

NEW CATALOG

describes absolutely non-skid RELGRIT abrasive embedded grating



free upon request Bulletin R655B

Reliance Relgrit abrasive embedded gratings and stair treads are completely described in this new catalog. Made by embedding abrasive particles in deep V-grooves in the bearing and cross bars, Relgrit is absolutely skid-proof even when wet or covered with oil. Unaffected by oil, grease, common industrial acids and chemicals, and longer wearing than steel, the Relgrit surface will last as long as the metal grating itself. If you have operations where floors become safety hazards, you will want to know more about Reliance Relgrit. Reliance Steel Products Company, P. O. Box 510-M, McKeesport, Pa. *(Advt.)*

For more details circle NED-582 H7 on enclosed inquiry slip

NEED HIGH PRESSURE PUMPING ?

300 to 6,000 PSI *

fmc

your best source is

John BEAN
INDUSTRIAL SALES DEPT.
Division of Food Machinery and Chemical Corporation
LANSING 4, MICHIGAN
SAN JOSE 1, CALIFORNIA

STANDARD PUMP CAPACITIES *

	INSIDE PACKED		OUTSIDE PACKED	
	Pressures to	Liquid Temp. to	Pressures to	Liquid Temp. to
Vertical Duplex	300 PSI	160° F.	1000 PSI	200° F.
Horizontal Triplex	400 PSI	160° F.	6000 PSI	200° F.

* Higher intermittent pressures available

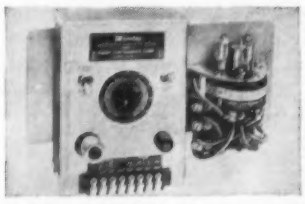
John BEAN ceramic or porcelain-lined pump cylinders LAST A LIFETIME!

also Packaged Power Pumping Units, Custom-Designed Pumps, High Pressure Washers

SENDNED INFORMATION REQUEST FORM TODAY (Please detail your requirements)

For more details circle NED-583 H7 on enclosed inquiry slip

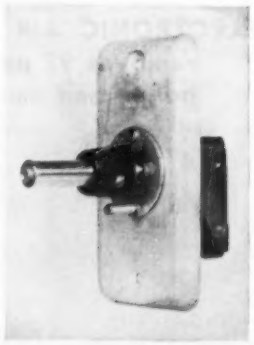
SENSITIVE RELAY
electronic control is adjustable



Any degree of signal sensitivity from 100,000 to 20 megohms can be selected by setting dial of this model B electronic relay. Up to 60-amp loads can be controlled from a 2-ma source. Alternating current operated instrument uses 2D21 miniature thyratron and mercury plunger relays rated 20, 35 or 60 amp on 115-v ac. Normally open or closed contacts can be selected by panel switch. Combinations of these contacts are available in 1, 2 and 3-pole constructions. Activating means can be photocells, thermostats, thermistors, meter-type contacts, or circuits controlled by resistivity of fluids or capacitance of dielectrics. Made by **Ebert Electronics Corp.**, 212-32H Jamaica Ave., Queens Village 28, N. Y.

For more details circle NED-584 H7 on enclosed inquiry slip

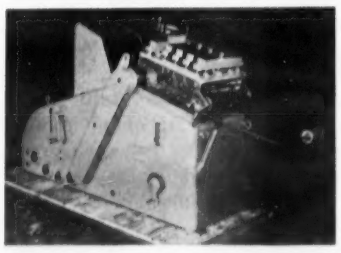
TEMPERATURE CONTROL
for use in vent fan systems



Thermal system of type B52 direct immersion air temperature control for vent fan systems consists of a bellows filled with a temperature-sensitive liquid. As bellows contracts or expands, a snap-action electrical switch is activated at a preset temperature point. Settings are made with a knob, pointer and calibrated dial. Normally-open, normally-closed or double-throw switches, the latter with no neutral position, have 15-amp, 115 or 230-v ac rating. Four models have adjustable ranges between 30° and 120° F and operating differential of about 2° F. Made by **United Electric Controls Co.**, 79 School St., Watertown 72, Mass.

For more details circle NED-585 H7 on enclosed inquiry slip

COIL CRADLE-STRAIGHTENER
handles 48-in., 16-in. wide coils



Combination coil cradle and power driven straightener is suited for material up to 16 in. wide, in coils up to 48-in. OD. Cradle has four power driven rest rolls, one idler rest roll and one bumper roll. Straightener has eight hardened and ground straightening rolls (lower four are power driven), indicators on upper rolls and four hardened and ground power driven take-in rolls. The model PDSC-1648 machine is equipped with loop control mechanism and 3-hp vari-speed drive motor for output speed from 26 to 76 fpm. Operation is on 220/440-v, three-phase, 60-cycle ac. Made by **U. S. Tool Co.**, Dept. N, Ampere, N. J.

For more details circle NED-586 H7 on enclosed inquiry slip

SHADED-POLE MOTOR
5.5-lb unit under 4 in. long

Ventilation openings in both shell and end shields of this "slim" two-bearing shaded-pole motor make possible its compact design. Less than 4 in. long and weighing 5.5 lb, it has flat face type mounting for close clearances in blowers, cooling fans, coolers and air conditioners. Wicking, outboard and inboard oil slingers and oil pump grooves on the shaft provide continuous, cooled, filtered oil. Integral cast aluminum fan blades on both ends of the rotor ventilate the motor from both ends. Ratings from 0.035 to 0.1-hp are available in 4 and 6-pole sizes with one, two or three speeds in either or both directions. Made by **General Electric Co.**, 1 River Rd., Schenectady 5, N. Y.

For more details circle NED-587 H7 on enclosed inquiry slip

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plastic electrical tape

Use versatile Dutch Brand Plastic Electrical Tape—the economical tape for maintenance, production and construction! Durable, it resists galvanic corrosion, rot, mildew, fungus, severest weather . . . is not affected by water, oil, grease, acids or alkalies. Available in a variety of sizes and widths . . . with exceptional bonding of adhesive to backing.

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DUTCH BRAND PRODUCTS
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Portable winch-type Utility Hoists, in a wide range of sizes up to 4000 lbs., are also available from Ingersoll-Rand.

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The only complete line of air hoists with convenient "one-hand" control.

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AIR HOISTS up to 24,000 lbs.

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Ideal for use in garage, shop, boat yard, farm, on trucks, etc. Has bronze, worm gear drive with 24 to 1 gear ratio and 3-speed crank. Comes with 28 feet of 3/16" high tensile strength, steel cable and free-spool, pull-out clutch. 34.95

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NOTE: We carry a complete line of hoists from small portables to huge, heavy duty types. Write for details.

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The 5" diameter cylinders above will develop up to 30 TONS THRUST at 3000 PSI. The 6" diameter cylinders up to 43 TONS. Check others in our stocks.

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Has a heavy duty, solid cast Bronze body. Rotates from 90° to 180° as desired. Has 29/32" diameter steel shafts with a ball and socket joint. In excellent condition. Ready-to-use!!! 5.95

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For use where tremendous power at a low take-off RPM is desired. Has 6 gears rotating on self-lubricating, hi-speed roller bearings. 85 to 1 gear ratio. Shafts are 1 1/4" and 3/8" diameter.

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ALLOY STEEL — Finest quality Alloy Steel cable. Rust & corrosion resistant.

Size	Price per ft.
7 × 7 STRAND	
1/16"	5¢
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7 × 19 STRAND	
1/8"	9½¢
5/32"	10¢
3/16"	12½¢
1/4"	13½¢
9/32"	16½¢

STAINLESS STEEL — Aircraft Quality. Rust & Corrosion Proof. You can not beat this Bargain.

Size	Price per ft.
7 × 19 STRAND	
1/16"	7¢
3/32"	14¢
5/32"	21¢
3/16"	23¢
7/32"	29¢
1/4"	38¢
5/16"	47¢

SAVE ON NEW NYLON ROPE

Very Finest Nylon Rope. Top Quality. Available in Sizes of 1/8" to 1" diam. Prices as low as 5¢ per running foot.

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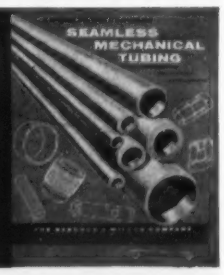
NEW a guide to the choice of **SEAMLESS MECHANICAL TUBING**



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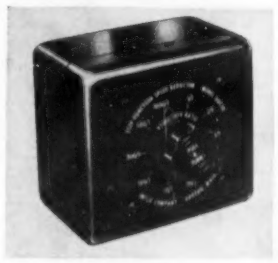
For more details circle NED-592 H7 on enclosed inquiry slip

SPEED REDUCERS
torque arm and flange mounted type

Both series ST torque-arm and series SF flange-type shaft-mounted worm gear speed reducers are available in three sizes with ratios from 7.5:1 to 77:1, horsepower range of 0.63 to 8.82 and maximum output torques from 816 to 7678 lb-in. Slow speed shaft of both series has two external slots to facilitate removal of the reducer with a standard wheel puller. Torque arm of ST series can be used in tension or compression in various positions. Hollow slow speed shaft assembly of ST series is interchangeable with that of CB and CT series with foot-mounted housing. Made by **Winsmith, Inc.**, 24 Eaton St., Springville (Erie County), N. Y.

For more details circle NED-593 H7 on enclosed inquiry slip

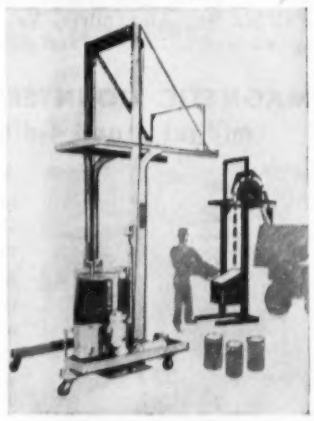
SPEED CHANGER
gives ratios to 1000 to 1



Turning the selector knob of this Step - Function Speed Reductor provides ten separate, repeatable speed ratios up to 1000:1. Speed change can be made while unit is operating. Providing non-slip transmission, drive is suitable for input speeds to 2000 rpm, and it has an output shaft torque capacity of 50 oz-in. It has parallel ¼-in. output and input shafts, and can be panel or base mounted. Made by **Insco Co.**, Dept. 12 NE, Hollis St., Groton, Mass.

For more details circle NED-594 H7 on enclosed inquiry slip

ELEVATING DUMPER
lifts 750-lb loads to 8-ft height



Loads weighing up to 750 lb are lifted to a height of 8 ft by this model 54 rear - load front - dump Powr-dumper. Available as portable or stationary model, it efficiently handles any single container such as a drum, box, bag, barrel or truck. Controls normally are pushbutton dead-man type, but semi or fully automatic controls can be supplied. Cycling can range from operator control to completely automatic. Two other models make up basic units from which a wide variety of lifting-dumping operations can be effected. Made by **Langley Mfg. Co.**, Dept. NED, 920C Cambridge St., Cambridge 41, Mass.

For more details circle NED-595 H7 on enclosed inquiry slip

AVIATION ELECTRIC BRUSHES
need no break-in filming run

Once they are seated, quick - filming aviation brushes are ready for immediate service at any altitude without sea - level break - in filming run. Stability is maintained in brush temperature, field current and commutation under wide range of speed, load, temperature and altitude variations. They also have low friction coefficient. Brushes are available in range of contact drop levels, with various degrees of high-altitude treatment, and in types, grades and sizes for practically any aviation rotating electrical equipment. Made by **Stackpole Carbon Co.**, Dept. NED, St. Marys, Pa.

For more details circle NED-596 H7 on enclosed inquiry slip

FREE HANDBOOK

"how to use Measured Work Techniques to reduce cleaning costs"

If you're concerned with rising costs for the cleaning and maintenance of your building, the answer to your problem may lie in the use of measured work techniques—long used in industry but just getting started in building cleaning and maintenance operations.

This booklet contains information that will help you . . .

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ELLIOTT BOILER TUBE EXPANDERS

for boiler tubes ¾ in. I.D. and up

All Elliott boiler tube expanders are available with drum, header, or short series mandrels. A drum mandrel is seen with the above Type K expander. For descriptive literature, write the Elliott Company, Lagonda Division, Springfield, Ohio, for Bulletin Y-46.

Y7-6

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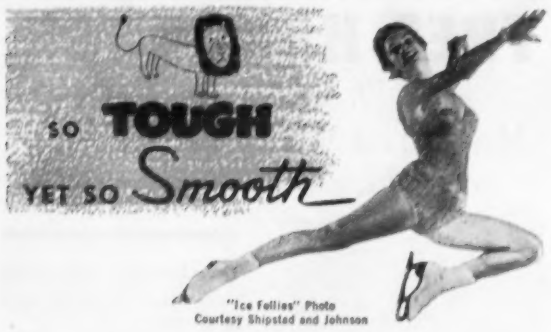

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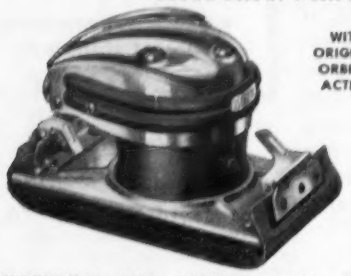
Courtesy Shipstad and Johnson

National Sanders are built for **TOUGH** operation on production lines. As they are vibrationless and easy to operate, they produce the *Smooth* surface so essential to a fine finish. These lightweight, powerful sanders can be used on wood, metal, plastic, felt, stone, and other surfaces. National makes a complete line of electric or air driven sanders with either straight-line or orbital action. The popular model 400 is shown below. Write for NEW folder today!



WITH ORIGINAL ORBITAL ACTION

NS

National Sanders

NATIONAL AIR SANDER, INC., ROCKFORD, ILLINOIS

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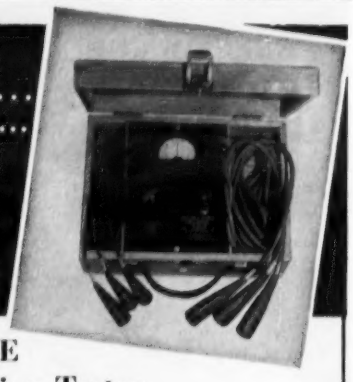
ELIMINATE GUESSWORK... AND DANGER... SAVE TIME in ELECTRIC MOTOR HOOK-UPS



with BIDDLE Motor Rotation Tester

This tester eliminates the need for temporary connections which can be time consuming, costly, and quite hazardous, particularly where many large high-voltage motors are involved. With this instrument you can very easily determine direction of rotation for any size 1, 2 or 3-phase motor, and make your first connections *permanent* ones with safe assurance they are correct. You can use it also to test circuits, check phase sequence and identify windings of multi-speed or multi-voltage motors.

Write for BULLETIN 80-D.

B-500

JAMES G. BIDDLE CO.
Electrical & Scientific Instruments
1316 ARCH STREET, PHILADELPHIA 7, PA.

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FOR MAXIMUM SAFETY *all over your plant use Safety* GRIP-STRUT

Pat. Pending

the new basic material, all in one piece (including channels), not welded, riveted or expanded in steel or aluminum, in standard sizes and gauges. Safety GRIP-STRUT presents an open space, in a diamond pattern, in excess of 55% of the area for ready access of light and air and gives a positive NON-SKID footing in all directions. Ideal for work platforms, stair and ladder steps, flooring, balconies, catwalks, machinery guards, fire escapes and for original equipment safety treads.

Work Platforms

Flooring

Machine Guards

Balconies

Important Safety Features

- ★ Fire proof
- ★ Slip proof
- ★ Maximum strength
- ★ Minimum weight
- ★ Easy to stand on
- ★ Cool in summer — warm in winter

Big Economy Features

- ★ For balconies — no extra light needed below — no extra heat.
- ★ No extra supports necessary — channels are integral part of the material
- ★ No secondary sprinkler heads needed
- ★ Self-cleaning
- ★ Cut and installed like lumber by your own maintenance force
- ★ Low in original cost

Distributors in all principal cities. Consult yellow pages in phone book under "GRATING."

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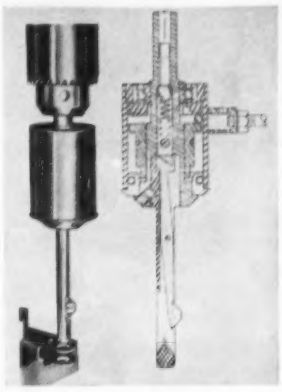
GRIP-STRUT division
THE GLOBE COMPANY • *Manufacturers since 1914*
4002 S. PRINCETON AVE. • CHICAGO 9, ILL.

▲ For more details circle NED-602 H7 on enclosed inquiry slip ▲

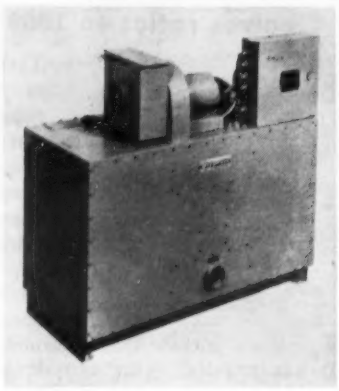
HOLE DEBURRING TOOL
for 1/4 to 3/4-in. diameter holes



Deburring and chamfering the front and back sides of drilled holes is accomplished with a single entry of this Noburmatic H deburring tool. It can also be used to deburr holes drilled into a blind cavity or line drilled through two or more walls. Automatically self-actuating, it produces a 45 - degree chamfer. It is available for hole sizes ranging from 1/4 to 3/4 in. for working depths from 1 1/2 to 3 1/4 in. Made by **Nobur Mfg. Co.**, Dept. N, 6860 Farmdale Ave., North Hollywood, Calif.

▲ For more details circle NED-603 H7 on enclosed inquiry slip ▲

DEHUMIDIFIER
automatic dual tower model



Humidities down to 10 per cent in areas up to 25,000 cu ft are maintained over a wide range of temperatures by the model 105 dehumidifier. It will also provide low dew point air for processing applications and can be used alone or with cooling equipment. Dry air output is 100 cfm. Regeneration of silica gel is accomplished automatically by electric heating elements. While one tower renews itself, the other continues to supply dry air. Unit is self-contained, measures 40 x 20 x 37 in. and has a humidistat for automatic control. Operation is on 115 v. Made by **Dryomatic Corp.**, Dept. ND, 806 N. Fairfax St., Alexandria, Va.

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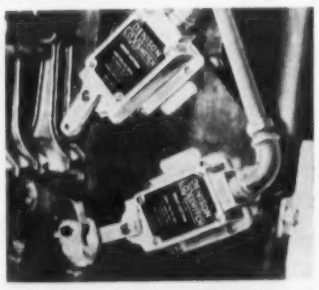
MAGNETIC COUNTERS
midget 3 and 4-digit models

Additive and subtractive types of these improved three and four-digit magnetic counters are available with manual reset wheels. The midget units accurately record up to 1200 pulses or counts per minute. They can be connected in vacuum tube plate circuits or operated by any contacting device. Counters can be furnished with or without panel mount cases for 6 to 110 v dc. Three-digit model measures 7/8 x 7/8 x 2 in. Made by **Abrams Instrument Corp.**, Dept. S19, 606 E. Shiawassee St., Lansing 1, Mich.

▲ For more details circle NED-605 H7 on enclosed inquiry slip ▲

LIMIT SWITCH
has overlapping contacts



Two isolated circuits with overlapping contact arrangement are incorporated in the model L100WS0 Loxswitch, a heavy duty machine tool limit switch. Operating lever movement of about 5 degrees closes both circuits and an additional travel of 4 degrees opens the first circuit and keeps the second circuit closed. The spring return reverses this procedure. Normal clockwise operation, with counter-clockwise spring return, can be reversed in the field. Safety overtravel of 70 degrees is provided in each direction. Enclosure is water, dust and oiltight. Various contact arrangements are offered. Made by **R. B. Denison Mfg. Co.**, Dept. N, 102 St. Clair Ave. N.W., Cleveland 13, O.

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Start where you please— SAW with ease . . .

KETT *Panel Master* HEAVY DUTY SAW

Zips through aluminum, Fiberglas, plastics, plastic laminates, even 16-gauge steel with minimum effort, maximum speed. Its performance is outstanding on metal laminates such as Mirawal, Metalwal, Met-L-Wood and Amorply.

- Rugged 2-in. diameter saw blades give full 3/8" depth of cut.
- Powered with heavy-duty industrial-type 110 volt AC/DC portable 5/16" capacity electric drill motor. Ball bearing equipped drive for smoother operation.
- Leaves accurate, smooth milled edge that requires no sanding or finishing.

Write for Catalog E-20

THE KETT TOOL COMPANY
5051 Madison Road
Cincinnati 27, Ohio

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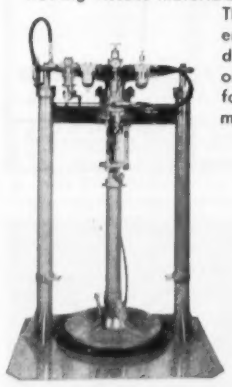
Pyles **Multi-Purpose INDUSTRIAL PUMPS**
for flowing materials from 5-gallon pail or 55-gallon drum

- Foot valves are available in three types—"Abrasive" for sand and abrasive materials—"Double Ball" for oil, grease, paint, glue free-flowing compounds—"Chopping Check" for heavy fibrous material—piston ratios are available from 1 to 1 to 80 to 1.

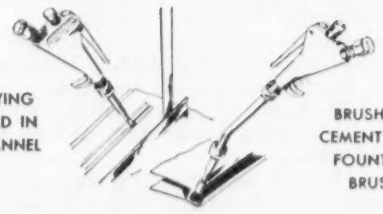
DOUBLE ELEVATOR BARREL CLEAN PUMPS can be furnished with either 6" or 8" air motor and with either 3 1/2" or 5 1/2" Double Elevator . . . The pumps are designed for flowing viscous materials direct from original container . . . Their rugged construction and power enable them to flow materials long distances through Hi Pressure Hose or Manifold Systems . . . Action of follower plate assures use of all material in the barrel.



5-GALLON PAIL TOP PUMPS

- The Pail Top Pump is for materials that are free-flowing . . . The unit seals the pail so that materials are not exposed to air or contamination . . . This pump can be converted into 37 different models.

PYLES—TIP—SEAL→FLOW GUNS



- The Pyles Tip Seal Flow guns are available in five different models with over 500 different style nozzles, extensions and fountain brushes.

PYLES INDUSTRIES, INC.
8926 SECOND AVENUE • DETROIT 2, MICHIGAN

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CHROMALOX *Electric* **Air Duct Heaters**

For heating air or gases under forced circulation, Chromalox Electric Air Duct Heaters are the efficient, economical answer.

For drying, curing, br'-ing. For heat-treating and annealing ovens. Space heating or adapting air-conditioning systems for central heating.

Heaters can be installed quickly and easily in round or rectangular ducts and accurately controlled either manually or by automatic thermostat.

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C-2108

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Edwin L. Wiegand Company
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See other ad on page 4

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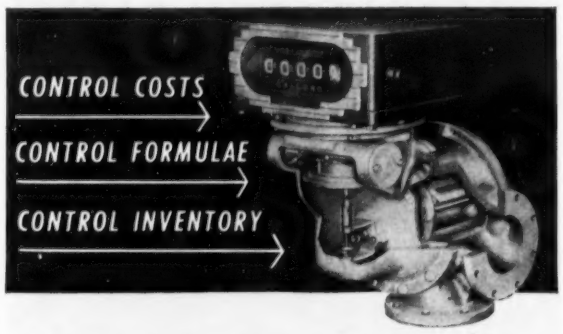
Stop Liquid Processing Waste



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Want accurate cost controls over liquids used in your plants? Need quality control for your formulations? Are your liquid inventories a problem? Then turn to *Rockwell Industrial Meters.* Get accurate metered records, quick! Made in a wide variety of sizes, types and materials, including *all-stainless steel* meters for corrosive services; automatic shut-off models for batching; remote registration for centralized control. Write for bulletin. Rockwell Manufacturing Company, Pittsburgh 8, Pa. Dept. 112H

ROCKWELL *INDUSTRIAL* METERS

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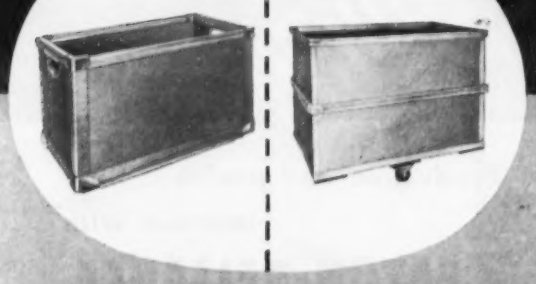
VULCANIZED FIBRE

KENNETT



MATERIALS HANDLING RECEPTACLES

strong • smooth • light • sanitary
will not dent—crack—corrode

Available in a wide variety of sizes and styles for every materials handling need.

Write for descriptive bulletin "Materials in Motion"—

NATIONAL VULCANIZED FIBRE CO.
WILMINGTON 99, DELAWARE, U.S.A.

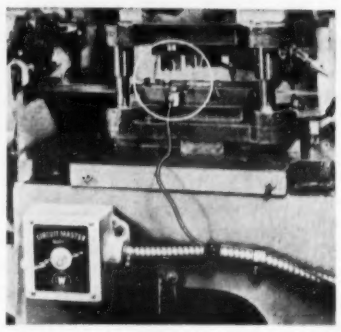
▲ For more details circle NED-611 H7 on enclosed inquiry slip ▲

POLYETHYLENE DRUM
unaffected by corrosive liquids

This single-trip nonreturnable molded polyethylene drum for fiber or steel drums is molded in one piece without welds or seams. Unaffected by acids, bleaches and many other corrosive materials, it can be supplied with any combination of filling and emptying closures. With the steel or fiber drum, it can be handled, palletized, filled, emptied and shipped the same as any steel drum. Use with fiber drum results in considerable weight savings. It is approved by ICC, OFC and NMC for shipment of 800 lb gross weight of regulated and nonregulated products under test permit. Made by **Delaware Barrel & Drum Co.,** Dept. NED, Box 1648, Wilmington, Del.

▲ For more details circle NED-612 H7 on enclosed inquiry slip ▲

PRESS OVERLOAD CONTROL
prevents tool and die damage



Consisting of mechanical sensing element and an electronic control, this Circuit Master prevents tool and die damage caused by mechanical overload. Device stops press instantly on first contact with overload. Fully automatic, it compensates for temperature changes, voltage fluctuations and mechanical changes. Additional sensing units can be added to the same circuit to control auxiliary motions such as feeds or transfers. Made by **Wintriss, Inc.,** 20N Vandam St., New York 13, N. Y.

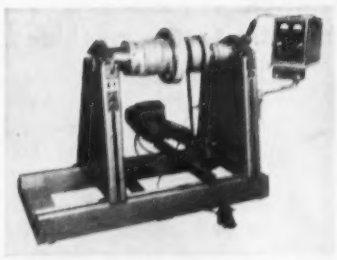
▲ For more details circle NED-613 H7 on enclosed inquiry slip ▲

LONG TWISTED WIRE BRUSHES
in ¼ to 8-in. sizes 6 ft or longer

Usable as tube cleaners, turbulators, stirrers, heat exchangers, static eliminators, filters and power brushes, these twisted wire brushes up to 6 ft or longer can be supplied in ¼ to 8-in. diameters. They can be single or double spiral, with hog bristles, fiber, nylon, steel, brass, stainless and other materials to suit application. Made by **Mill-Rose Co.,** 1983 E. 59th St., Cleveland 3, O.

▲ For more details circle NED-614 H7 on enclosed inquiry slip ▲

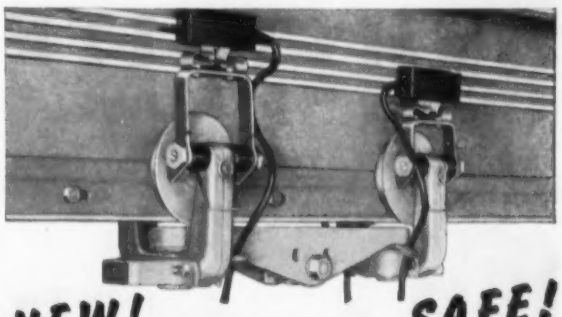
DYNAMIC BALANCING MACHINES
three models used in four ways for parts weighing up to 2500 lb



Vibration and unbalance problems are corrected in four different ways by three-model line of dynamic balancing machines. They are used for dynamic and single plane balancing of motors, spindles, turbines, impellers, flywheels and blowers. The electronic console can be disconnected for portable use to check vibration tolerances of assembled machinery, to pinpoint causes and analyze all vibrations in such machinery, and for in-place or portable balancing.

Electronic console consists of any portable IRD vibration analyzer. Angle of unbalance is seen on the workpiece under a bright white stroboscopic light. Amount of unbalance is shown on a meter. Three models handle rotors weighing from 5 to 300, 50 to 1000 and 250 to 2500 lb. Made by **International Research & Development Corp.,** Dept. A, 797 Thomas Lane, Columbus, O.

▲ For more details circle NED-615 H7 on enclosed inquiry slip ▲



NEW! SAFE!

AMERICAN MONORAIL
KANT SHOCK
SHIELDED ELECTRIFICATION
For MonoRail Track and Crane Systems

By covering its standard bus bar electrification with a specially designed polyvinyl chloride extrusion, American MonoRail now furnishes completely safe electrified systems.

This KANT-SHOCK shielding absolutely prevents accidental contact with live bus bars. It is impossible for an adult's finger to enter the shield.

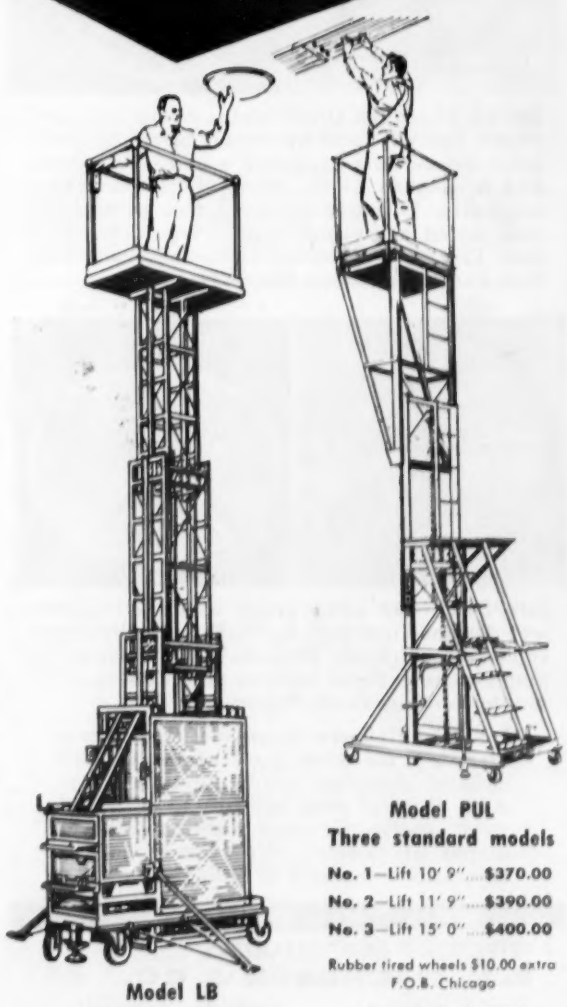
KANT-SHOCK Electrification positively eliminates all the hazards of open bar conductors—prevents costly accidents—protects employees—reduces insurance rates.

Write for KANT-SHOCK Bulletin KS-1

THE AMERICAN MONORAIL CO.
13116 ATHENS AVENUE • CLEVELAND 7, OHIO
(IN CANADA—CANADIAN MONORAIL CO., LTD., GALT, ONT.)

▲ For more details circle NED-616 H7 on enclosed inquiry slip ▲

90% of overhead servicing jobs can be done faster and with perfect safety with these ECONOMY Hi-Reach Telescopers!



Model LB
Hi-Reach Telescopers
Four heights 20 ft. to 35 ft.
Standard Models from $1510.00 up.

Model PUL
Three standard models
No. 1—Lift 10' 9"....**$370.00**
No. 2—Lift 11' 9"....**$390.00**
No. 3—Lift 15' 0"....**$400.00**
Rubber tired wheels $10.00 extra
F.O.B. Chicago

Custom built Hi-Reach Telescopers up to 100 ft.
Write for complete catalogue

Headquarters for standard and special built overhead service lifters and material handling equipment since 1901

ECONOMY ENGINEERING
4519 West Lake St., Chicago 24, Illinois

▲ For more details circle NED-617 H7 on enclosed inquiry slip ▲

AJUSTRITE®

SWINGING BRACKET CHAIRS

FOR MOUNTING ON THE TABLE, BENCH, WALL OR MACHINE

The seat raises and lowers a total of 8 inches. The bracket swings 15½ inches from attaching plate. Contains all the adjusting features of regular AJUSTRITE chairs. Made of 16 ga. steel tube—electrically welded and equipped with powdered iron bearings—lifetime lubricated. Tested with 600 lb. load. Special mounting brackets to serve many individual needs, will be developed on application.

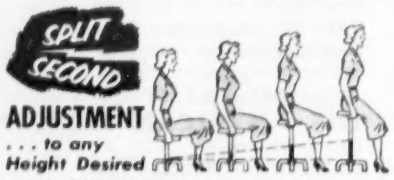
ADVANTAGES OF SWINGING BRACKETS

(a) Allows each worker to swing in as close to his operation as he may care to. (b) Keeps chairs off of floors. (c) Stops interchange of chairs from one department to another.

GUARANTEED against failure due to defective material or workmanship for 10 years.

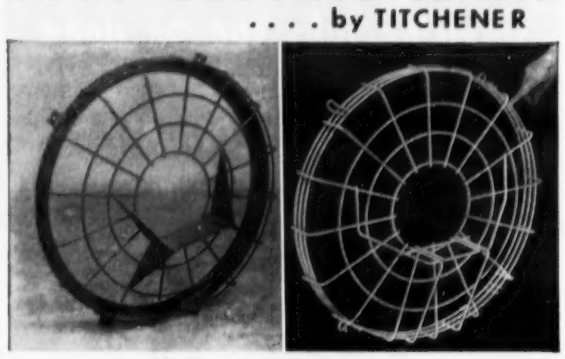
FREE TRIAL Try for 30 days (no obligation) the many advantages of AJUSTRITE Swinging Bracket Chairs. Ask for catalog.

AJUSTO EQUIPMENT COMPANY
515 Conneaut St. Bowling Green, Ohio

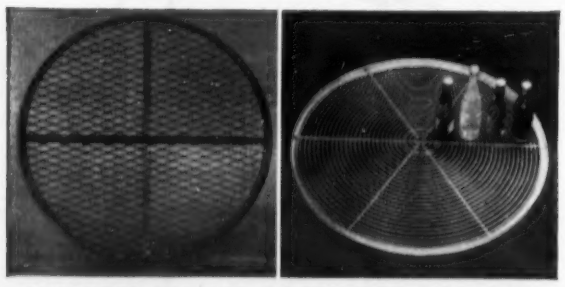


For more details circle NED-620 H7 on enclosed inquiry slip

COST CUTTING IDEAS
. . . . by TITCHENER



SAVES $7.15 PER UNIT! Motor mount and guard (left), formerly used by famous electrical equipment manufacturer, required a heavy cast frame, and it weighed 24 lbs. Working with customer's engineers, Titchener designed and built simple wire mount and guard (right). Wire unit weighs only 13½ lbs., improves performance and costs less. For details, circle Report No. 2.



SUPPORTS 200 LBS.! Spiral wire shelf (right) was designed and built by Titchener for beverage cooler manufacturer. Wire shelf is less expensive than expanded metal shelf, supports 200 lbs. without reinforcing. Circle Report No. 1.

Tell it To Titchener Learn how a wire/strip assembly can help you cut costs, ease material shortages and improve your product. Visit our plant and talk to our wire/strip experts. Or send drawings, photographs or samples. We'll send you our suggestions—no cost or obligation.

MAIL THIS COUPON

WIRE/STRIP HEADQUARTERS
E. H. TITCHENER & CO.
Dept. 3502
67 Clinton St., Binghamton, N.Y.

Send Wire/Strip Application Reports circled: Nos. 1 2
☐ Have a Titchener Field Engineer call.

NAME TITLE
COMPANY
STREET
CITY STATE

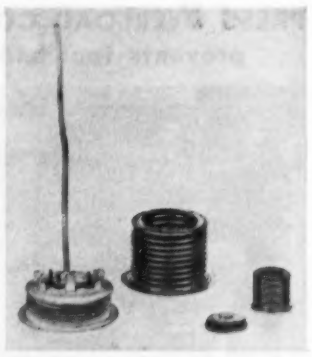
For more details circle NED-621 H7 on enclosed inquiry slip

HIGH BAY LIGHT FIXTURE
adjusts to any desired angle

Industrial plants, warehouses and other high-ceiling locations are applications for this Par-Beam-Light Canopy line of adjustable lighting units. They use PAR-46, PAR-56 and the new PAR-64 lamps to provide high-intensity lighting at distances up to 100 ft. Recessed types are also available. Spring-tension socket adjusts to any angle and holds fixture in desired position. Made by **Swivelier Co.**, Dept. 137, 43 34th St., Brooklyn 32, N. Y.

For more details circle NED-622 H7 on enclosed inquiry slip

METALLIC BELLOWS
length reduced by 90 per cent



Though retaining original spring rate and stroke, Formset bellows are reduced in length as much as 90 per cent by new design and manufacturing method. These liquid-filled units are particularly suited for use in miniaturized components as well as for applications where short bellows of exceedingly low spring rate are needed. Made by **Robertshaw-Fulton Controls Co.**, Bridgeport Thermostat Div., Milford, Conn.

For more details circle NED-623 H7 on enclosed inquiry slip

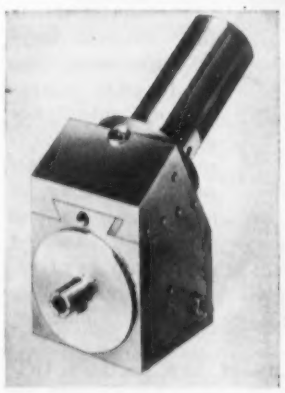
MAGNETIC SHIELDING CANS
have 1 to 3 or more shielding layers

Line of one-piece seamless Co-Netic and Netic magnetic shielding cans consists of one, two, three or more shielding layers blended into a single layer by a

rotary drawing process. Components containing permanent magnets which are stationary or in motion can be encased without distorting their magnetic field or reducing their sensitivity. Various construction shield intensities under 20 gauss and 21 to 300 gauss in either direction, intensity up to 300 gauss down to 0.01-gauss, confine up to 300 gauss to be attenuated to 0.01-gauss or lower outside, and prevent coupling of two 300-gauss fields. Can sizes range from 1 in. ID by 2 5/16 in. high to 5¼ in. ID by 7 in. high in round, oval, square and rectangular shapes. Made by **Perfection Mica Co.**, Magnetic Shield Div., 1310 N. Elston Ave., Chicago 22, Ill.

For more details circle NED-624 H7 on enclosed inquiry slip

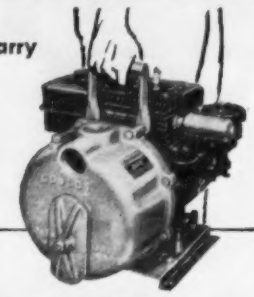
END-SURFACE MARKER
usable on automatic screw machines



End surfaces of production parts are marked with suitable characters or figures by this 900 series automatic roll marker during the machining cycle on screw machines and other multiple-station machines. It mounts on the tool mount slide. Radial marking of flat or angular end surfaces is effected with a conical marking die or with a flat die. Dimensions are held because roll markers operate on same centers as the part being machined. Die diameters range from 0.8 to 4½ in. for marking steel, brass, aluminum, plastics and other machinable materials. Made by **New Method Steel Stamps, Inc.**, 147 Jos. Campau St., Detroit 7, Mich.

For more details circle NED-625 H7 on enclosed inquiry slip

- One man can carry
- Self-priming
- Compact, nonclogging



Dimensions: 17" x 14½" x 15"

portable utility pump

Truly a mighty midget, this Goulds centrifugal pump weighs only 62 lbs. Yet it handles capacities up to 85 GPM, suction lifts up to 25 ft.

Self-priming. After first priming, pump stays primed—even if suction and discharge lines drain back.

Won't clog. Any solids up to 7/16" in diameter will pass through open impeller.

Easy to clean. Clean-out plate offers direct access to impeller eye and lower casing. No dismantling.

Easy to adjust. Separate guide vane provides adjustable clearance, makes impeller replacement easy.

Won't overload. Impeller won't overspeed at shut-off or with engine throttled wide open; won't overload at open discharge.

For more information, write for Bulletin 639.1 on Goulds Fig. 3672 utility pump.

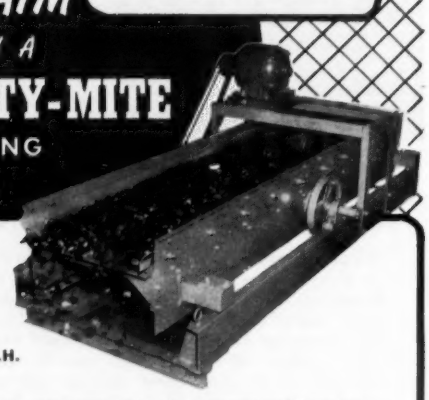
Goulds PUMPS INC. Seneca Falls New York

Sales offices: Atlanta • Boston Chicago • Houston • New York Philadelphia • Pittsburgh • Tulsa

For more details circle NED-626 H7 on enclosed inquiry slip

DON'T LOSE COSTLY PARTS IN THE SWEEPINGS

RECLAIM WITH A MIGHTY-MITE VIBRATING SCREEN



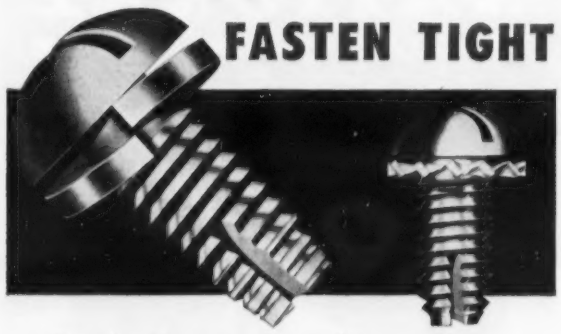
SINGLE AND DOUBLE DECK MODELS UP TO 15 T.P.H.

Now do as many companies do to prevent profits going out in the sweepings . . . Easy to use, easy to move Mighty-Mite will pay for itself. Investigate today!

SCREEN EQUIPMENT CO., INC.
Buffalo 25, New York

For more details circle NED-627 H7 on enclosed inquiry slip

FIT RIGHT FASTEN TIGHT



Production and profits improve with

EATON-RELIANCE

THREAD-CUTTING SPRINGTITES® & SEMS

SEND FOR FREE ENGINEERING BULLETIN S-49A.

EATON RELIANCE DIVISION MANUFACTURING COMPANY 509 CHARLES AVENUE • MASSILLON, OHIO

SALES OFFICES: NEW YORK • CLEVELAND • DETROIT CHICAGO • ST. LOUIS • SAN FRANCISCO • LOS ANGELES

For more details circle NED-628 H7 on enclosed inquiry slip

Cut socket replacement costs with McGILL® industrial sockets

Use LEVOLIER Industrial Sockets and eliminate frequent socket replacement resulting in inconvenience, costly maintenance and unproductive down time. These 600 watt, 250 volt LEVOLIER sockets are built better to last longer.

Screw shells are .006" heavier than standard, in either brass or extra heavy impact resisting molded phenolic. Sections screw together for easy wiring. Proven LEVOLIER switch mechanism insures dependability of pull chain, fibre lever or push button control. Underwriters' Laboratories Inspected.

Available from your electrical wholesalers

YOU CAN DEPEND ON McGILL QUALITY

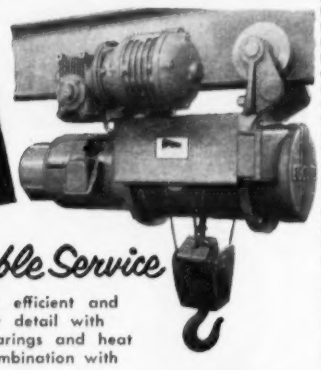
Request *McGill catalog No. 84 today*

McGILL MANUFACTURING CO., INC. 151 N. Campbell St. Valparaiso, Indiana

▲ For more details circle NED-629 H7 on enclosed inquiry slip ▲

*Series H-Capacities from 2000 to 50,000 Pounds

EUCLID HOISTS



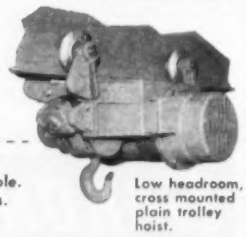
for Dependable Service

These hoists are highly efficient and strictly modern in every detail with oversize anti-friction bearings and heat treated steel parts in combination with a welded frame.

The planetary gearing and mechanical load brake are mounted in oil tight housings. The hoist gearing is assembled in the hoist drum.

This design produces an unusually compact, rugged and accessible hoist readily adapted to various installations and types of control.

Write for Literature



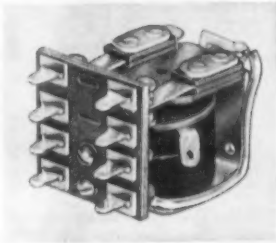
Low headroom, cross mounted plain trolley hoist.

Various other standard and special heavy duty hoists available. Write regarding your requirements.

THE EUCLID CRANE & HOIST COMPANY
1362 CHARDON ROAD • CLEVELAND 17, OHIO

▲ For more details circle NED-630 H7 on enclosed inquiry slip ▲

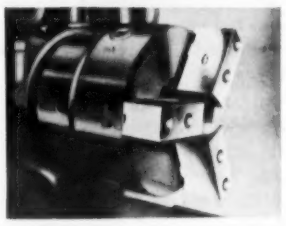
MIDGET RELAY
for printed circuit applications



Series GP midget relay is intended for general purpose control applications in printed circuitry. Sturdy, 1/8 x 1/32-in. solid lugs inserted into circuit board gives rigidity. Coils are available in all standard alternating and direct-current voltages to 115 v. Series PC sensitive plate circuit relay with the same frame and printed circuit feature has sensitivity of about 130 mw per pole, preset at factory. Coils are available in 2500, 5000 and 10,000 ohms. Both relays employ silicon steel or magnetic iron. Self-wiping 1/8-in. silver contacts are rated 5 and 2 amp noninductive for series GP and PC relays, respectively. Made by **Hillburn Electronic Products Co.**, Dept. N, 55 Nassau Ave., Brooklyn 22, N. Y.

▲ For more details circle NED-632 H7 on enclosed inquiry slip ▲

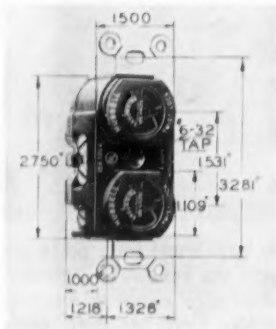
CHUCK JAW BLANKS
fit over 300 master chucks



Produced in sizes to fit 90 per cent of all master chucks, these standard chuck jaws are machined to American Standard form from SAE-1020 steel. These soft blanks can be formed to hold all types of irregular-shaped workpieces without marring surfaces. Made by **Jergens Tool Specialty Co.**, Dept. NED, 712 E. 163rd St., Cleveland 10, O.

▲ For more details circle NED-633 H7 on enclosed inquiry slip ▲

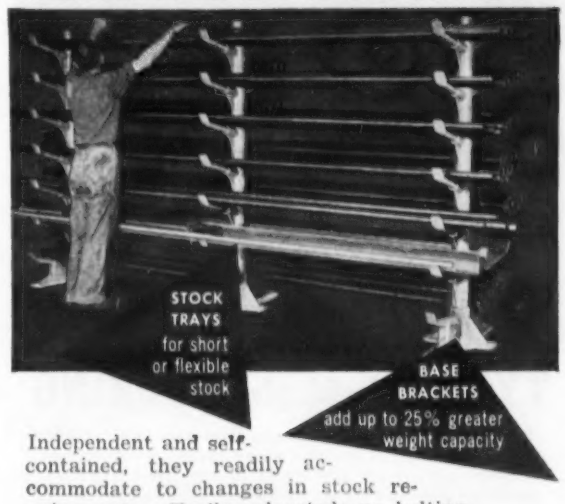
GROUNDING WIRING DEVICE
three-wire type rated 15 amp, 125 v



The 4700 series Twist-Lock three-wire devices for grounding purposes is non - interchangeable with regular Twist-Lock devices of the 7580 type. Special elbow - shaped grounding slot permits entrance of 4700 series caps only. The 15-amp units meet code requirements for 125-v grounding. UL-approved line consists of duplex receptacle, connector body and rubber, Bakelite and armored caps. A green hexagonal screw identifies the grounding terminal. Receptacle has pressure grip back wiring and conventional side wiring. Made by **Harvey Hubbell, Inc.**, Dept. X-1, State & Bostwick Ave., Bridgeport 2, Conn.

▲ For more details circle NED-634 H7 on enclosed inquiry slip ▲

FLEXIBLE STORAGE



Independent and self-contained, they readily accommodate to changes in stock requirements. Easily relocated; no bolting. You get more into less space; you save time in storing and issuing with Brown Section Racks. Iron and steel construction. Can't burn, warp, sag. Never wear out. Eliminate safety hazards. Act now! Write for complete specs and prices on models and sizes. Brown Engineering Co., 129 N. 3rd Street, Reading, Pa.

BROWN QUICK-SERVE RACKS

▲ For more details circle NED-635 H7 on enclosed inquiry slip ▲

ALL NEW! Low Power 2-Way FM Radio For All Types Of Industrial Trucks

A single 6/12/24/32 VDC and 117 VAC Communications Unit without costly converters. Operates as mobile or base station.

The most versatile, rugged, low-power industrial radio you can buy, the Bendix* Bantam is the result of over 5 years intensive research and development. Designed and engineered specifically for industrial trucks, it sets a new standard for dependability. Incorporating all the latest electronic advancements which have made Bendix the foremost leader in railroad and aviation communications, the Bantam makes possible real savings in materials handling operations. By equipping your fleet with the Bendix Bantam, you have instant voice contact with each operator. Results: Vehicle traffic is better coordinated, tie-ups avoided, deadheading eliminated and dollars saved.

The Bendix Bantam operates on 6, 12, 24, 32 VDC or 117 VAC without converters. Battery drain is less than a headlamp—the lowest of any mobile radio equipment on the market!

The Bendix Bantam enables mixed fleets to operate with a minimum number of sets, allowing complete interchangeability from one truck to another whether gas, electric, diesel or LPG powered. Mail coupon for full details.

*Reg. U.S. Pat. Off.

DIVISION OF BENDIX AVIATION CORPORATION BALTIMORE 4, MD.

Bendix Radio

Bendix Radio
Mobile Sales, Dept. L
Baltimore 4, Md.

Gentlemen:
Please send me complete details about the Bendix Bantam 2-Way Radio.

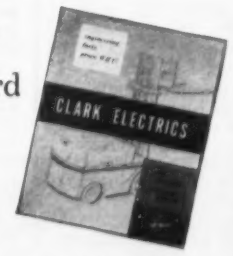
Name _____
Title _____
Firm _____
Street _____
City _____ State _____

▲ For more details circle NED-636 H7 on enclosed inquiry slip ▲

YOU GET MORE TON-MILES PER BATTERY CHARGE

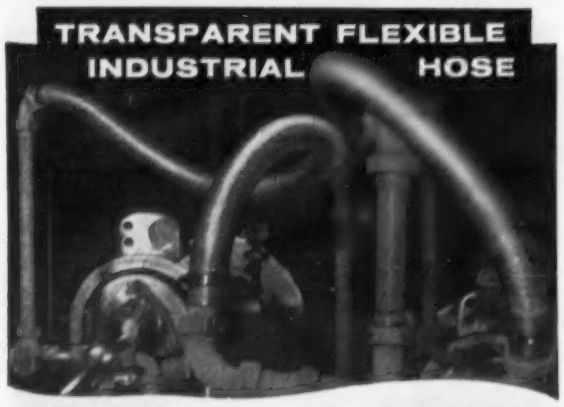
A new free booklet gives engineering facts that prove why CLARK ELECTRICS are the most efficient trucks on the market.

Simply circle the reader service card for your copy.



CLARK EQUIPMENT Industrial Truck Division
CLARK EQUIPMENT COMPANY
BATTLE CREEK 21, MICHIGAN

▲ For more details circle NED-631 H7 on enclosed inquiry slip ▲



TYGON flexible plastic TUBING

Tygon Flexible Plastic Tubing in bore sizes to 3" makes the ideal industrial hose for many applications because it offers advantages not found in any other type. It combines glass-like clarity with true flexibility and resistance to oils, greases and chemicals. Physically tough, it ruggedly resists abrasion, and withstands repeated flexing and rough usage.

Tygon's many tubing formulations provide types to safely handle a wide and varied range of materials—from sensitive high purity drugs to corrosive acids. Tygon Tubing installs quickly—cleans easily. Fifty-five bore sizes from 1/16" to 3" provide a size for virtually every tubing or hose need. 406-E

Write today for Bulletin T-97 for complete technical data.

Plastics and Synthetics Division
U. S. STONEWARE
AKRON 9, OHIO

For more details circle NED-637 H7 on enclosed inquiry slip

MANEUVERING ELIMINATED

by chemical plant with Pettibone Speed Swing's exclusive 180° boom swing

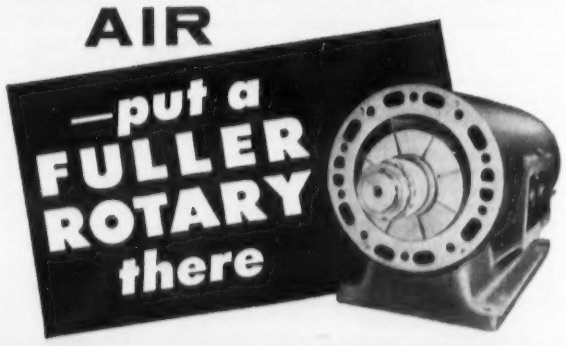
One of the practical reasons why the versatile Speed Swing is fast becoming the most popular yard machine is demonstrated above. Speed Swing does not require a large area for maneuvering. The material is lifted high, in seconds, as Speed Swing backs from the pile, saving time and loading costs. Write today for literature describing the six attachments and outstanding operating features of the Speed Swing. There's no obligation!

THE NEW YARD SENSATION PETTIBONE SPEED SWING

Pettibone Mulliken Corp., 4700 W. Division St., Chicago 51, Ill. • SPaulding 2-9300

For more details circle NED-638 H7 on enclosed inquiry slip

Wherever Your Plant Needs AIR



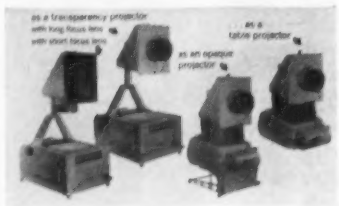
Sturdy, vibrationless Fuller Rotary Compressors provide pulsation-free air at lowest cost for all plant uses. The Fuller-pioneered rotary principle requires a minimum of moving parts, insuring high reliability and maintaining capacities for the life of the machine (pressures to 125 psig; capacities to 3300 cfm). C-307 3749

FULLER COMPANY 154 Bridge Street Catasauqua, Pa.
SUBSIDIARY OF GENERAL AMERICAN TRANSPORTATION CORPORATION
Chicago • San Francisco • Los Angeles • Seattle
Kansas City • Birmingham

PIONEERS OF HIGH-EFFICIENCY VANE TYPE ROTARY COMPRESSORS SINCE 1930

For more details circle NED-639 H7 on enclosed inquiry slip

DRAWING PROJECTOR
for transparencies or opaques



Single projection head and lens are used by the Transpaque II projector for opaque, transparency, table and rear projection. Unit will not only project 10 x 10-in. transparencies or 11 x 11-in. opaques, but can be set directly on large objects, maps, drawing boards or display case for projecting any 11 x 11-in. portion therefrom. Selection of lenses in focal lengths from 4 to 10 in. enables operator to obtain the right size image for any screen at any distance. Unit can be purchased for any one of projection functions mentioned, and components for the other applications may be added later. Made by **Projection Optics Co.**, Dept. NE, 330 Lyell Ave., Rochester, N. Y.

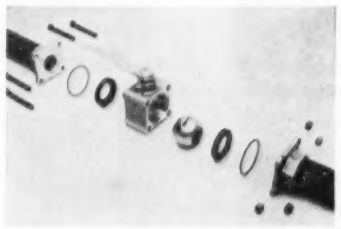
For more details circle NED-640 H7 on enclosed inquiry slip

HAND TRUCK
two-wheel steel model

Easy rolling and weighing 21 lb, the model TB-21 two-wheel hand truck has a welded tubular steel frame, channel iron leg support and 5/8-in. cold rolled steel axle welded to the support. It is 47 in. high, 13 in. wide and has a 7-in. nose blade. Tires are 10 x 2.75 in. ZP or pneumatic. Made by **M-H Equipment Co.**, Dept. 2W, 707 Fabrication St., Dallas, Tex.

For more details circle NED-641 H7 on enclosed inquiry slip

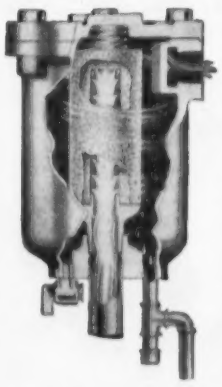
BALL VALVE-UNION
for wide range of media



Installation of a separate union to provide a breaking point in the line is not required when the combination union and ball valve is used. It permits in-line maintenance by removing four bolts and lifting the center section with its renewable parts. Operation of the low flow resistance valve is unaffected by reversal of flow, as it has seals at both ends. Metal components may be bronze, aluminum bronze or aluminum, with carbon steel, type 303 and 316 stainless steel to be offered soon. Seat and seal materials of buna-N, Hypalon, neoprene, natural rubber or Teflon accommodate a wide range of media. Made by **Worcester Valve Co.**, 22 Parker St., Worcester, Mass.

For more details circle NED-642 H7 on enclosed inquiry slip

ADAMS PORO-STONE AIR FILTER,
designed to remove oil, water and foreign matter from compressed air lines with minimum pressure drop.



The R. P. Adams Poro-Stone air filter is engineered to efficiently remove entrained oil, water and pipe scale from compressed air lines. Liquid droplets and solids being carried by the gas stream are first removed by centrifugal action in an annular chamber. Secondary filtration is achieved by passing the air or gas stream through a poro-stone unit. An automatic trap can be provided to discharge the residue from the cyclone chamber.

At rated capacity the filters operate at a maximum pressure drop of only ½ lb., thus insuring delivery of line pressure to the point of consumption.

The units require virtually no service or maintenance—thereby insuring continued trouble-free, low cost performance.

ADAMS Poro-Stone air filters are available from stock in sizes to suit your needs. For further information, write today for Bulletin 117, R. P. Adams Co., Inc., 227 East Park Drive, Buffalo 17, New York. *(Advt.)*

For more details circle NED-643 H7 on enclosed inquiry slip

for AUTOMATED CONTROL, specify

Check the features of this new design:

- Rapid diaphragm action, no sliding parts
- Precise clutching and braking – adjustable "soft" to "harsh" action
- Simplicity in design, trouble-free operation
- Silent action, eliminates magnetization of surrounding parts
- 5 standard styles; full range of sizes — 7/8" to 3 1/8" diameter

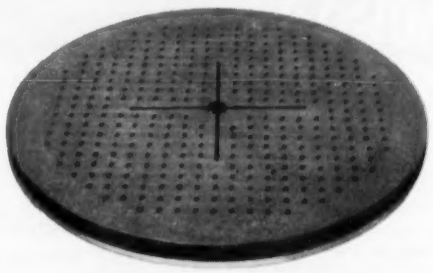
Check your requirements for electric clutch and brake control. You'll find SIMPLATROL Miniature and Small Electric Clutches and Brakes upgrade new machine performance, give faster, more precise sequence operations.

Ask for recommendations on Simplatrol units. New illustrated folder on request.

Simplatrol products corp.
24 SALISBURY ST., WORCESTER, MASS.
Representatives in Key Industrial Areas

For more details circle NED-644 H7 on enclosed inquiry slip

longer disc life, lower grinding costs

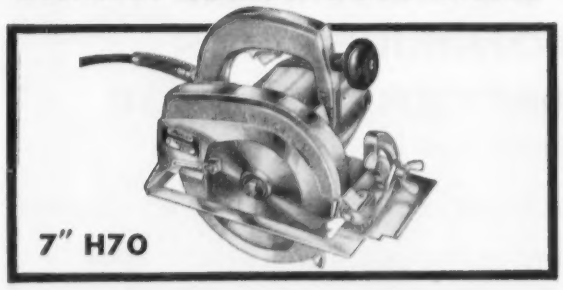


Gardner Abrasive Discs
. . . made to meet your specifications
Send for latest general abrasive catalog.

GARDNER abrasive discs
GARDNER MACHINE COMPANY
462 Gardner St.
Beloit, Wisconsin

For more details circle NED-645 H7 on enclosed inquiry slip

STANLEY HEAVY DUTY SAWS



The features

Exclusive "Motor-Saver" protects saw motor against impact shock of nails, etc. Exclusive "Free-Start" Guard prevents "drift," "hang-up," or sticking at any angle of cut.

- Two position handle
- Dirt resistant finish
- Least blade exposure
- Stanley-made motors
- Functional steel base
- Heavy duty bearings
- "Tru-View" vision
- Easier depth adjustment
- Easier bevel adjustment

The prices

8" H85, Now only **$89.95** cuts 2 7/8" at 90°, 2 1/8" at 45°
7" H70, Now only **$74.95** cuts 2 3/8" at 90°, 1 3/4" at 45°
6½" H68, Now only **$64.95** cuts 2 3/16" at 90°, 1 5/8" at 45°
6" H65, Now only **$59.95** cuts 2" at 90°, 1½" at 45°

Look for these fine saws at the Stanley Electric Tool distributor near you. Write for fully illustrated power tool folder, E136. Stanley Electric Tools, Division of The Stanley Works, New Britain, Conn.

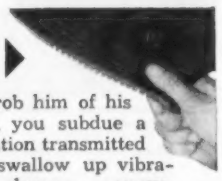
STANLEY

For more details circle NED-646 H7 on enclosed inquiry slip

Less noise!

where you install machinery on

ISOMODE® PADS



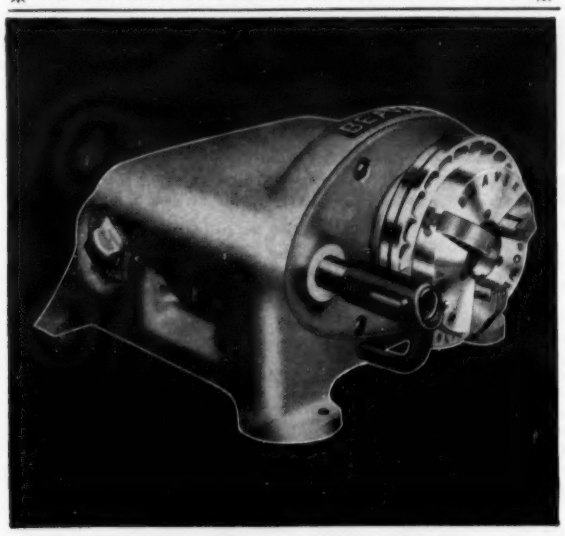
Why let noise fatigue a man, rob him of his capacity? With Isomode Pads, you subdue a major noisemaker . . . the vibration transmitted from machines to floor. Pads swallow up vibration and shock . . . noise level drops . . . everybody's happier.

Cut pad to size needed (1 sq. in. per 50 lbs of weight) and install under machine feet. Eliminates bolting or lagging to floor. It's that easy!

An economical, standard package of ten 18 x 18" Isomode Pads mounts 80 tons of machines. Saves on building maintenance too. Try it and convince yourself. Thousands have. Send for details.

MB manufacturing company
A DIVISION OF TEXTRON, INC.
1066 State Street, New Haven 11, Connecticut

For more details circle NED-647 H7 on enclosed inquiry slip



THE NEW BEAVER Porto Mite Super Drive

THE WORLD'S LIGHTEST 4-LEGGED POWER DRIVE! TREMENDOUS POWER AND RUGGEDNESS! WEIGHS ONLY 84 POUNDS!

• A one-man unit with four-legged stability. Gears lubricated for life. Faster, more powerful, completely new, greatly improved motor. Quick-acting Power Grip Wrenchless Chuck standard equipment; positive grip forward and reverse. Instant and accurate, easy setting rear guide eliminates double chucking. Motor and switch fully protected. All parts accessible for minimizing upkeep and maintenance. Has power to spare to drive geared tools up to 12". Smooth, streamlined, polished aluminum housing. Write today for catalog!

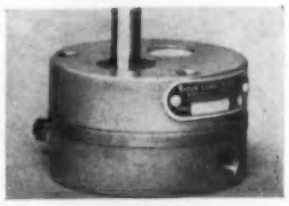
CAN'T TELL IT ALL HERE! Write for latest facts on all Beaver Machines!

BEAVER PIPE TOOLS INC. 373-500 WARREN, O.

HAVE A CUTTING OR THREADING PROBLEM? Let Our Engineering Research Department help you solve it.

For more details circle NED-648 H7 on enclosed inquiry slip

SEALED GEAR PUMP
can be mounted on any machine



Driven from a rotating machine shaft, either directly or through a gear or chain drive of suitable ratio, this sealed gear pump can be mounted on any machine. It is applicable to "flood lubrication" of gear trains, chains or cams, or recirculating sump systems. The unidirectional pump will withstand back pressures up to 20 psi. A built-in relief valve prevents overloading the seal. Mounting can be on shaft side or on opposite face. Discharge is 50 cc per minute at 100 rpm and recommended speed range is 20 to 1000 rpm. It is capable of 150 psi discharge pressure. Dimensions are 2½ in. diameter and 1½ in. high. Made by **Bijur Lubricating Corp.**, Dept. N, 151 W. Passaic St., Rochelle Park, N. J.

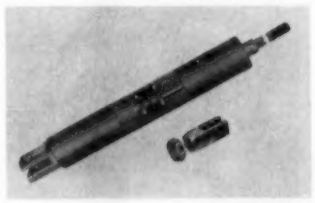
For more details circle NED-649 H7 on enclosed inquiry slip

DRAWBAR TYPE ARBOR
combined with actuating adapter

Drawbar model of the Tork-lok arbor is combined with a flanged adapter housing an arbor actuating mechanism. Seven fixtures in line will cover range from ½ to 2 9/16 in. Holding device aids in performing drilling, reaming, tapping, milling, surface grinding, gear shaping, gear hobbing, burring and other operations. Made by **N. A. Woodworth Co.**, 1300 E. Nine Mile Rd., Detroit 20, Mich.

For more details circle NED-650 H7 on enclosed inquiry slip

AIR CYLINDERS
two lines have fork type rear mount



High tensile aluminum heads, honed brass or steel tubing treated for corrosion resistance, stainless steel rods, Nylined bearings and choice of fixed or adjustable cushions for either or both ends are incorporated in type AN and BN AllenAir cylinders. Both lines have fork type rear head for mounting. Available bore sizes are ⅞, 1⅛, 1½, 2, 2½, 3 and 4 in. Type BN uses cups for piston head seals instead of O-ring packing used on type AN. Former also has double packing for the rod gland. Double-acting and single-acting spring return models are available. Made by **A. K. Allen Co.**, 57 Meserole Ave., Brooklyn 22, N. Y.

For more details circle NED-651 H7 on enclosed inquiry slip

SCHERR PRECISION MEASURING TOOLS

MAUSER VERNIER CALIPER STAINLESS STEEL

NEW VERNIER SLIDES ARE NOW DULL CHROMED

$14.75 Reading in .001"

The NEW #101 Mauser Vernier Caliper is now made entirely out of Stainless Steel - and features double length Vernier, new gib construction of slide, quick-acting cam lock, etc. Measuring cap. 5-5/16" outside, inside and depth.

MAUSER VERNIER CALIPER WITH NEW COMBINED FRICTION CAMLOCK AND FINE ADJUSTMENT SCREW

Intended for work of highest precision. Reading in .001"

Vernier Caliper #1407, Code GINDO $25.50
Height Gauge #1408, Code GINFU $33.50
Request Illus. Brochure

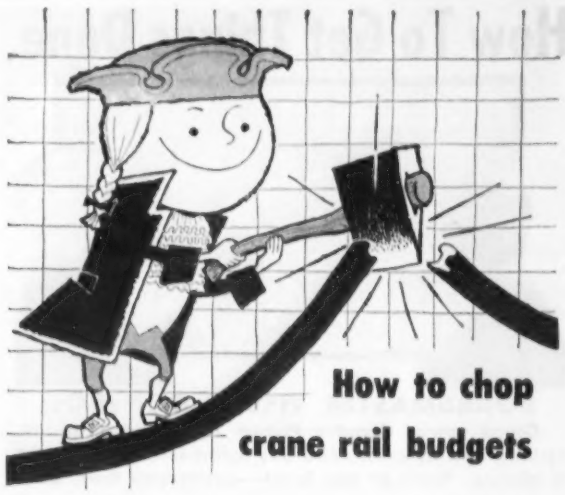
UNIVERSAL BEVEL PROTRACTOR with LOUPE

Hardened 6" blade. "Lustro-Chrome" finished measuring face.
Special Chrome Steel $22.50
Stainless Steel $25.50
Reading in 5 min. of arc

NEW MICRO PROJECTOR $375.00 BASE PRICE

GEO. SCHERR CO., INC.
200 ND LAFAYETTE ST. • NEW YORK 12, N. Y.

For more details circle NED-652 H7 on enclosed inquiry slip



How to chop crane rail budgets

If crane rail maintenance budgets are a problem in your plant, here's a suggestion: Send for this informative booklet which explains how you can reduce maintenance costs. It describes a special technique of rail-joint assembly, "floating rail" fastenings and three USS Special Crane Rail Sections—designed specifically for longer life under heavy wheel loads. For your free copy, write to United States Steel, Room 5612 525 William Penn Place, Pittsburgh 30, Pa.

USS SPECIAL CRANE RAIL SECTIONS
UNITED STATES STEEL

For more details circle NED-653 H7 on enclosed inquiry slip

Time delays in automation circuits

AGASTAT
Time / Delay / Relay

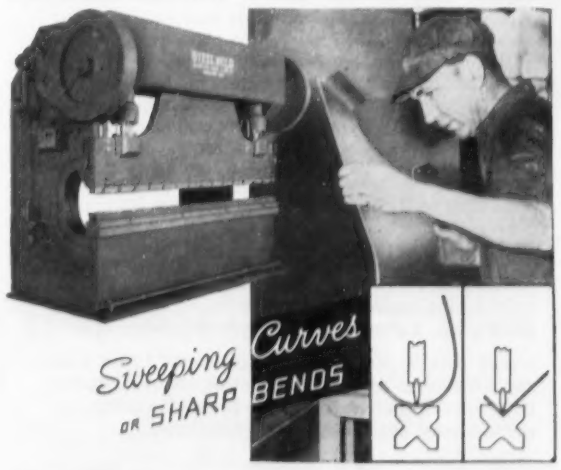
When automatic machinery and circuits must be timed with repetitive accuracy (from 0.1 second to ten minutes or more) you'll find a sure, reliable answer in AGASTAT electrically-actuated pneumatically-timed time delay relays.

The AGASTAT is
• light, versatile, dependable.
• unaffected by voltage variations.
• instantaneous recycling.
• available in models which offer delays on energizing and de-energizing, two-step delays, manually-actuated time delay switch, remote push button control.

WRITE our application engineers for help with your timing problem. Address Dept. A23-85

AGA DIVISION
Elastic Stop Nut Corporation of America
1027 Newark Avenue, Elizabeth, New Jersey
Pioneers in pneumatic timing.

For more details circle NED-654 H7 on enclosed inquiry slip



Sweeping curves or sharp bends are easily made on Steelweld Presses with standard 4-way bending dies, simply by adjusting the ram stroke. Blanking, drawing, corrugating and punching are also readily performed. A complete line of Steelwelds in capacities to 750 tons is available for plate to 20'0" long.

STEELWELD BENDING PRESSES CATALOG No. 2010

Send for free copy of catalog No. 2010.

THE CLEVELAND CRANE & ENGINEERING CO.
6633 East 281st St., Wickliffe, O.

STEELWELD PRESSES

For more details circle NED-655 H7 on enclosed inquiry slip

How To Get Things Done

BOARDMASTER VISUAL CONTROL

Gives you a Graphic Picture of your operations, spotlighted in color. You See what is happening at a glance. Facts at eye level—saves you time, prevents errors.

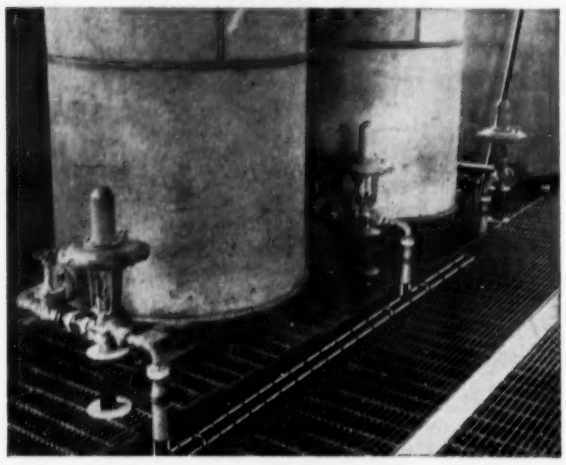
Simple, flexible—easily adapted to your needs. Easy to operate. Type or write on interchangeable cards, snap in grooves. Ideal for production, scheduling, sales, traffic, inventory, etc. Made of metal. Compact, attractive.

Complete Price $49.50 Including Cards

FREE 24-Page Illustrated Booklet N-100 Mailed Without Obligation

GRAPHIC SYSTEMS 55 WEST 42ND STREET NEW YORK 36, N. Y.

For more details circle NED-656 H7 on enclosed inquiry slip



Speedline® FITTINGS CUT PIPING COSTS AT AMERICAN ALCOLAC

Speedline unions permit the piping beneath this floor grating to be readily removed for alteration or repair. This is important at American Alcolac Corporation in Baltimore, where pipe welding must be done *outside* the inflammable plant area. But it's just one of the reasons why American Alcolac Corporation in conjunction with Marcus Sittenfield & Associates, consulting engineers, specified Speedline Fittings for the plant's complete process piping system.

SPEEDLINE FITTINGS are designed especially for use with light wall pipe. Economical schedule 5 Stainless was used to reduce materials costs . . . yet maintain high degree of process purity.

SPEEDLINE FITTINGS permit free choice of joining method for easier, faster assembly . . . even in confined areas. Labor costs were reduced also.

Faced with a process piping problem? Investigate the advantages of Speedline Fittings *first*. Write for copy of "Speedline Catalog" at no obligation or contact your nearest Speedline distributor.

Speedline®

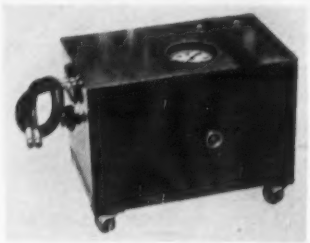
SPEEDLINE IS A REG. T. M. OF HORACE T. POTTS COMPANY 702M1

STAINLESS STEEL FITTINGS
THE NEWEST THING IN PIPELINE ECONOMY
SPEEDLINE DISTRIBUTORS ARE LOCATED IN PRINCIPAL CITIES FROM COAST TO COAST

Manufactured by **HORACE T. POTTS COMPANY**
532 E. Erie Avenue • Philadelphia 34, Penna.

For more details circle NED-657 H7 on enclosed inquiry slip

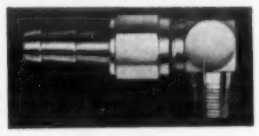
AIR-HYDRAULIC POWER UNIT supplies pressures to 3000 psi



Suitable for powering or testing wide range of equipment, this air-hydraulic power unit has a demand system with constant pressures to 3000 psi. Mounted on casters for mobility, it is powered by a piston type air-hydraulic booster. Pressure is adjustable within 25 psi. Included are pressure gage, hydraulic and air hoses, pressure control valve, two accumulators, exhaust mufflers, air cleaner-lubricator and 1-gallon reservoir. Made by **Hi-Shear Rivet Tool Co.**, 2600 W. 247th St., Torrance, Calif.

For more details circle NED-658 H7 on enclosed inquiry slip

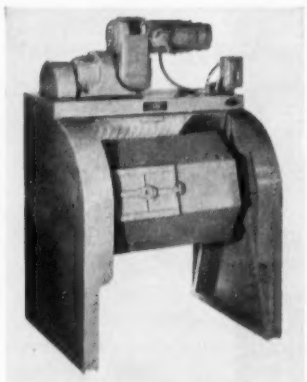
BRASS HOSE FITTINGS for water and air service



Made from solid brass bar stock, line of air and water hose fittings includes pipe elbows, nipples, hex bushings, ferrules and clamps. Full-flow machined passages and nonporous construction are features. Elbows and shapes are formed by silver soldering the components, permitting practically unlimited combinations of hose stem outlets to pipe sizes. Nonstandard shapes, sizes and assemblies can be formed to specification. Made by **Service Mfg. & Supply Co.**, Dept. N, 315 E. State Fair, Detroit 3, Mich.

For more details circle NED-659 H7 on enclosed inquiry slip

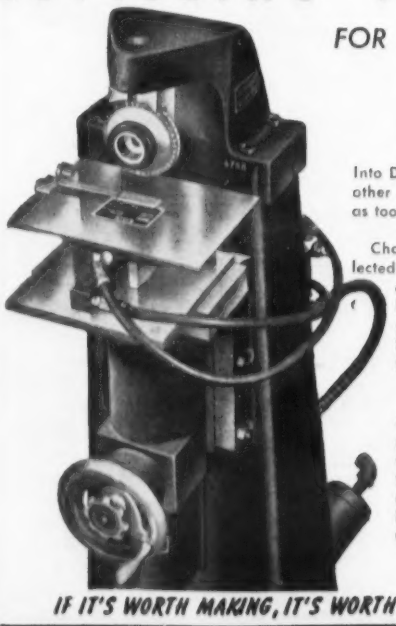
BARREL FINISHING MACHINE for plastic, metal or rubber parts



Deburring, grinding, polishing, burnishing and deflashing operations are performed on small to medium large production runs of metal, plastic or rubber parts by this Globe 300 series Burr-Rite, Sr. barrel finishing machine. Features include free - swinging safety screen, quick-acting latch on aluminum doors for fast loading and unloading, ¼-in. abrasive-resistant bonded neoprene lining, and choice of 23-rpm single speed or 6 to 30-rpm variable speed drive. One, two or four barrel compartments can be supplied. Made by **Casalbi Co.**, 540 Wayne St., Jackson, Mich.

For more details circle NED-660 H7 on enclosed inquiry slip

PNEUMATIC POWER LETTERING PRESS



FOR STAMPING SELECTIVE LETTERING

Into DIE components and other metal parts such as tools, gauges and jigs.

Characters are selected by turning dial and are stamped into part when foot pedal is depressed. Spacing of characters is automatic.

Requires 20 to 40 pounds line pressure. Write today for further information on this or any other member of the famous GTS line.

IF IT'S WORTH MAKING, IT'S WORTH MARKING.

GEO. T. SCHMIDT, INC.
1800 W. Belle Plaine Avenue
Chicago 13, Illinois

For more details circle NED-661 H7 on enclosed inquiry slip

THE NEW REZNOR

is the only GAS UNIT HEATER with ALL these advantages

- Clean, modern design, back as well as front . . . all controls and connections inside the cabinet.
- FlexiTemp control system with automatic two-speed fan control to provide nearly continuous air circulation and minimize temperature fluctuation (optional).
- No costly frills and gadgets . . . features which are needed only to meet special situations always separately listed and priced.
- Winter/summer switch with convenient pull cord for operation of fan alone during hot weather.
- Fan or blower models in ten sizes from 25 to 300 thousand BTU.

Write today for free catalog GN-57.

REZNOR
WORLD'S LARGEST-SELLING DIRECT-FIRED UNIT HEATERS
Reznor Manufacturing Company, 41 Union Street, Mercer Pennsylvania

For more details circle NED-662 H7 on enclosed inquiry slip

DIE CUSHIONS

FOR ALL DEEP DRAWING OPERATIONS

Furnished complete ready to install. Operates perfectly on all shop air lines.

•

ACCURATE ADJUSTABLE WORKING PRESSURES ASSURED
QUICK SETUP SAVES TIME
PRESS BED OR BOLSTER PLATE MOUNTING
17 MODELS AVAILABLE FROM STOCK, SIZES 3" THRU 16"

•

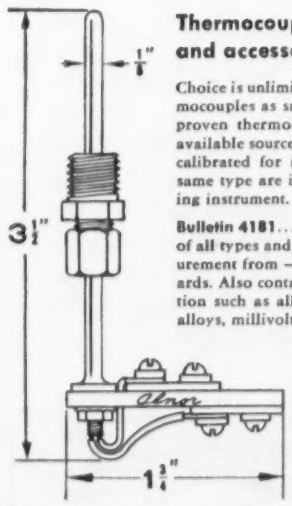
DIE CUSHIONS AVAILABLE FOR ANY POWER PRESS
ENGINEERING SERVICE AT YOUR DISPOSAL
ALL DIE CUSHIONS INSTALLED ON TRIAL BASIS

Full Universal Pneumatic Die Cushion

DAYTON ROGERS *Manufacturing Company*
MINNEAPOLIS 7E, MINNESOTA

For more details circle NED-663 H7 on enclosed inquiry slip

Alnor® pyrometer supplies



Thermocouples, alloy wire, and accessories

Choice is unlimited at Alnor, where you'll find thermocouples as small as ⅛" O.D. and more unique, proven thermocouple designs than at any other available source. Each thermocouple is individually calibrated for its specific application—all of the same type are interchangeable without recalibrating instrument.

Bulletin 4181... lists thermocouples and accessories of all types and alloys for every temperature measurement from —100° F. to 3000° F., to ISA Standards. Also contains complete engineering information such as alloy curves, uses and limitations of alloys, millivolt relationship tables, etc.

Bulletin 4257... lists *surface* temperature thermocouples and accessories available from Alnor.

Circle bulletin number you want, attach this ad to your letterhead and mail to: Illinois Testing Laboratories, Inc., Room 529, 420 N. LaSalle St., Chicago 10, Ill.

Model 3480 small pipeline thermocouple. Precision built to Alnor performance standards. Unit price: $9.00.

PRECISION INSTRUMENTS FOR EVERY INDUSTRY Alnor

For more details circle NED-664 H7 on enclosed inquiry slip

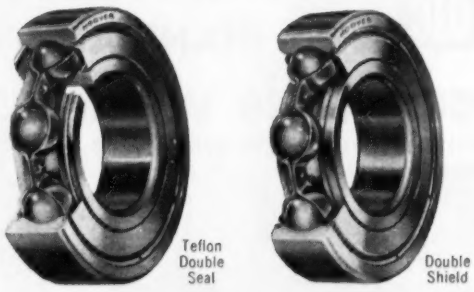
Convert to FLUID DRIVE in only 5 MINUTES!

Complete and ready to install in minutes . . . slips right over the motor shaft . . . that's the Twin Disc Hydro-Sheave® Drive. Hydro-Sheave Drives reduce starting current demands . . . permit selection of smallest motors . . . provide smooth, fast acceleration . . . protect against overloads, stalling and burn-outs . . . cushion out destructive shocks and vibrations. Twin Disc Hydro-Sheave Drives from ¾ to 50 hp at all nominal motor speeds . . . Fluid Couplings to 850 hp.

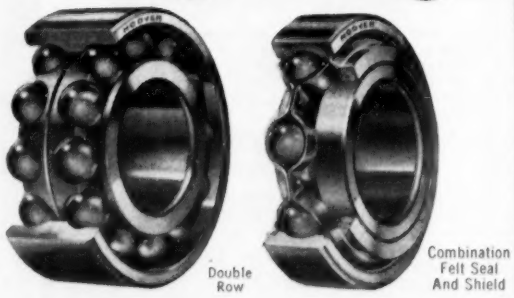
TWIN DISC
Friction Clutches and Fluid Drives

TWIN DISC CLUTCH CO. • Racine, Wisconsin

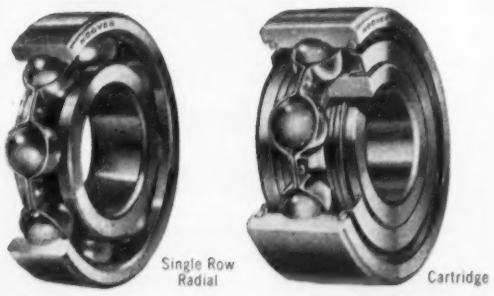
For more details circle NED-665 H7 on enclosed inquiry slip



for quality



use hoover



When you want quality bearings to add to the performance, long life and smooth operation of your products, use Hoover Ball Bearings. They combine the exactness of *Micro-Velvet* Lapped Balls with the ultra-smoothness of *Hoover Honed* Raceways. The result—top quality bearings that assure unexcelled performance, quietness, long life and heavy load capacity.

Hoover Ball Bearings are available in the light, medium and heavy-duty series . . . their microscopic precision adds up to your "best buy" in ball bearings. Manufacturers are invited to call in Hoover engineers for technical assistance.

Write for your copy of "Hoover Handi-Book of Anti-Friction Bearings." It analyzes the characteristics of all types of anti-friction bearings.

hoover

BALL AND BEARING COMPANY, ANN ARBOR, MICHIGAN

Micro-Velvet and *Hoover Honed* are Hoover Trademarks

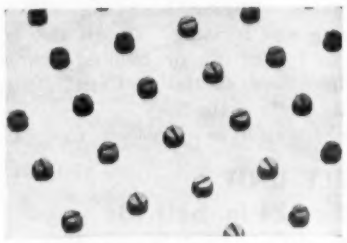
For more details circle NED-666 H7 on enclosed inquiry slip

INTEGRATED MOTOR-PUMP
compact unit fits in pipe line

Impeller of this Magnaflow pump includes the windings of the motor rotor so that it is a completely sealed unit which is supported right in the fluid line by input and output pipe flanges. Leakproof design adapts it for handling hazardous as well as routine fluids. Pump requires no lubrication or packing and can be installed in remote locations because no servicing is required. It is also suited for submerged operation. Sizes are available with capacities up to 100 gpm, with high head models delivering 10 gpm at heads to 31 ft. Motors for 115, 220 and 220/440-v single and three-phase operation are available. Pipe flange sizes range from ¾ to 2 in. Made by **Corley Co.,** 221 W. 41st St., New York 36, N. Y.

For more details circle NED-667 H7 on enclosed inquiry slip

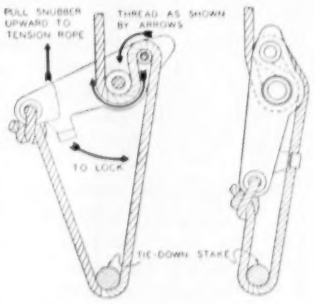
CAP NUTS
made of black nylon



Knurled and slotted line of cap nuts made of black nylon can be used with rods or screws and can also serve as knobs. They have high dielectric strength and corrosion resistance and are made in various sizes with American Standard threads, including 6-32, 8-32, 10-32 and ¼-20. Made by **Weckesser Co.,** Dept. NDC, 5701 Northwest Highway, Chicago 30, Ill.

For more details circle NED-668 H7 on enclosed inquiry slip

ROPE SNUBBERS
hold is 90 per cent of rope strength



Noncorrosive aluminum rope snubbers are suitable for holding ⅛ through ½-in. rope. Positive locking mechanism holds up to 90 per cent of rope strength without damaging hemp, nylon or Dacron rope. Illustration shows threading and snubbing action. They are adaptable for all types of maintenance, erection, load holding and construction uses. Made by **Eastern Rotorcraft Corp.,** Dept. NED, 400 Swamp Rd., Doylestown, Pa.

For more details circle NED-669 H7 on enclosed inquiry slip

- Pump Controls
- Duplex Pump Alternators
- High and Low Level Cutoffs
- High and Low Level Alarms
- Multi-Level Signals
- Liquid Metering
- Special Controls and Panels

Write for 32 Page Catalog

Listed by Underwriters Laboratories

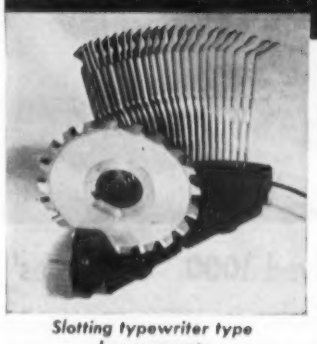
CHARLES F. WARRICK CO.

1962 W. Eleven Mile Rd. Berkley, Mich.

Warrick FLOATLESS LIQUID LEVEL CONTROLS ELECTRODE TYPE

For more details circle NED-670 H7 on enclosed inquiry slip

If You Can See It—You Can SAW IT with a GAY-LEE "THINSAW"



Slotting typewriter type bar segment.

Solve problems in high-precision slitting, slotting, sawing with Gay-Lee carbide-tipped Thinsaw! Wafer-thin for the most delicate work with positive alignment and rigidity that avoid run-out . . . but retaining the speed and long life of carbide. Patented construction holds tips firmly.

Patented—manufactured under license
Stronger Braze Circular Seal

- **THIN AS .030"**
- **DIAMETERS UP TO 12"**

Complete Line of Saws for Any Application—To Any Tolerance

WRITE FOR FULL INFORMATION

GAY-LEE COMPANY
CLAWSON • MICHIGAN

For more details circle NED-671 H7 on enclosed inquiry slip

it's SHARP . . . it's CLEAR when you inspect with . . .

PIKE 4½ power ACHROMATIC

FLASH-O-LENS illuminated magnifiers

4½x portable battery model; also electric "plug-in" models

- sharp focus
- adjustable image
- built-in illumination
- quick conversion to 7, 20 or 40 power with interchangeable lenses

20x or 40x

WRITE TODAY for literature showing uses, types, prices

PIKE REG. U. S. PAT. OFF.

Since 1927—manufactured in the U.S.A. by—

E. W. PIKE & CO., INC.
492 North Ave., Elizabeth, N. J. • ELizabeth 2-0630

For more details circle NED-672 H7 on enclosed inquiry slip

NEW CATALOG... flexible couplings

Send today for your copy of the new catalog on Rex Roller Chain Flexible Couplings. It tells all about the new all-steel coupling that installs and removes in a jiffy...and which is available in a wide range of bore sizes.

And because it is steel, the coupling gives you long service life and the strength to absorb shock and vibration—at minimum cost.

The Rex Roller Chain Flexible Coupling runs quietly and accommodates adequate misalignment and end float. The catalog tells how to pick the exact coupling for your job and conditions of service. CHAIN Belt Company, 4686 West Greenfield Avenue, Milwaukee 1, Wisconsin.

CHAIN BELT

For more details circle NED-673 H7 on enclosed inquiry slip

The idea that solved 1000 "headaches"

The famous SBS-60 upside-down hand picture first appeared about a year ago. It dramatically illustrates how SBS-60 Cream Deodorant Soap is almost impossible to waste . . . and why it has solved literally thousands of soap "headaches" in hundreds of nationally known organizations.

What is your soap "headache":

- . . . . soap powder spilled all over your washrooms?
- . . . . bar soap wastefully dissolving on the shower room floor?
- . . . . liquid soap dispensers either dripping or all clogged up?
- . . . . constant work keeping dispensers filled and in order?
- . . . . complaints about your soap from both men and women?
- . . . . whatever your soap "headache", SBS-60 can help.

Write and we'll send complete information that tells you just how SBS-60 Cream Deodorant Soap "cures" most of today's soap "headaches". *Write us today!* We'll rush the details to you.

Write Dept. 57-H6

sugar beet products co. SBS *the washword of industry*

MAIN PLANT: 302 Waller St., Saginaw, Michigan
Los Angeles, California • Newark, New Jersey
CANADIAN SUBSIDIARY: Chemical By-Products, Ltd., 25 Racine Road, Rexdale, Ontario, Canada

▲ For more details circle NED-674 H7 on enclosed inquiry slip ▲

The sooner you put Cadillac Quik-Vac to work — the sooner you'll start cutting cleaning costs

Cadillac Quik-Vac Model 14 has a 2-speed motor . . . an exclusive feature. High speed (super-suction) for the toughest vacuuming and blowing jobs . . . reduced power for cleaning small parts in stock bins, delicate wiring, etc.

Model 14 has a 3-in-1 Swivel Hose-coupler.* For vacuuming, it connects hose to dirt container or power unit intake . . . for blowing, to the power unit outlet. *Another Cadillac Quik-Vac exclusive that saves time, trouble and money.*

In just seconds, the *2-speed Power Unit can be demounted* for use as a hand-type Blower-Suction Cleaner.

THE *Rugged* MODEL 14 CLEMENTS Cadillac® QUIK-VAC

. . . has a new teammate . . . the versatile MODEL 21. This Cadillac Quik-Vac meets the requirements of maintenance women as well as maintenance men. It has super-power, *extra* large capacity, and its wide floor nozzle has a "floating brush" that adjusts itself automatically to any type of floor covering. It's as sturdy as an oak, yet moves about with ease of a ballerina.

WE'LL BE GLAD TO SEND FULL INFORMATION ABOUT THESE CLEMENTS PRODUCTS

- Cadillac Quik-Vac Model 14
- Cadillac Quik-Vac Model 21
- 2-speed portable Blower-Suction cleaner and 3 other job-rated models
- Hot- and Cold-Air Blower
- Furnace Blowers
- Gas Blowtorch
- Huge assortment of attachments for handling scores of cleaning and production jobs

WRITE US FOR COMPLETE INFORMATION and name of our nearest supply dealer

*Patent applied for

write Industrial Vacuum Cleaner Division
CLEMENTS MFG. CO., 6627 S. Narragansett Ave., Chicago 38, Ill.

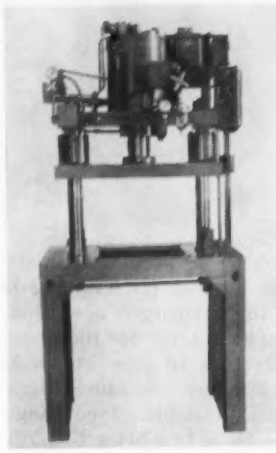
SINCE 1910

Specialists in the manufacture of vacuum cleaning equipment for home, business and industry

Several territories are open for sales representation by verified factory reps

▲ For more details circle NED-675 H7 on enclosed inquiry slip ▲

TRIM PRESS
high speed 20-ton hydraulic model is suited for variety of operations



Die casting and plastic trimming are among applications for this high speed 20-ton hydraulic press, operated by a 3-hp motor. Parallel strain rod principle, moving platen and heavy duty guide bearings provide a large, well supported working area that permits off-center loading. All components, including reservoir, are mounted on the top. Entire area beneath, and on all sides is open.

Press has 1200 ipm approach speed and 450 ipm return speed. Platen can be provided with knock-out holes, clearance holes and shank clamp for use of standard punch press dies. Stroke is adjustable from 12 to 24 in. between platens which have an 18 x 24-in. working area. Typical applications include staking, swaging, stamping, shearing, blanking, trimming and forming. It can also be used as a dwell press for curing or holding operations. Made by **Buffalo Metal Container Corp.**, Dept. NED, 75 Meadow Rd., Buffalo 16, N. Y.

▲ For more details circle NED-676 H7 on enclosed inquiry slip ▲

CONVEYOR-TABLE UNIT
has 8, 12, 18 or 24 in. belt for sorting, assembling and inspecting

Standard belt widths of 8, 12, 18 and 24 in. are available on series T-44 Versa - Veyor table top conveyor unit, used for sorting, assembling, packaging and inspecting operations. Standard frame is 10 ft with overall length of 11 ft, including end roll assemblies. Additional 10-ft frame sections can be added for lengths to 81 ft. Unit can be furnished in stainless steel or aluminum and has self-aligning ball conveyor bearings.

Package type drive can be mounted at various points along unit's length, or near discharge end. It has 5-in. diameter lagged and crowned drive pulley and includes conveyor belt take-up rollers. V-belt drive from electric motor to gear reducer is available in fixed belt speeds of 3 to 90 fpm and in 3:1 variable belt speeds with lowest speed range from 3 to 30 fpm. Standard ¼-hp motor has thermal overload protection. Made by **Belt Corp.**, 8222 Stahl Rd., Orient, O.

▲ For more details circle NED-677 H7 on enclosed inquiry slip ▲

sure/bore

"Package Plan"

offers... ★CONVENIENCE ★EFFICIENCY ★ECONOMY

NEW PACKAGE PLAN INCLUDES:

Boring Bar "4—some Package"... 4 Boring Bars from 7/8" to 1-3/4" dia., with Micrometer adjustment. Tool Bit mounted at 53° or 90° angle. Boring range from 1" to 3-1/8" dia.

Sure-Bore Cartridge "Package"... "53" or "90" pack includes 3 complete assemblies, cartridges, carbide tool bits, wrenches.

Boring Head "2—some Package"... includes a 2" and 3" head, 2 long and 2 short tool bits . Boring range 2-3/4" to 5-1/4" dia.

WRITE FOR LITERATURE AND PRICES

PORTAGE Double-Quick, Inc.
1043 SWEITZER AVENUE • AKRON 11, OHIO

▲ For more details circle NED-679 H7 on enclosed inquiry slip ▲

OTC *REPLACE 42 SIZES WITH THESE TWO*

NEW GIANT ALLOY adjustable wrenches

THINNER-LIGHTER-STRONGER

Until now 42 fixed size wrenches were needed to handle jobs done by these two *"Slim-Twin"* adjustable wrenches. Slim to permit easy access to tough jobs. Lightweight sturdy, high quality alloy steel for dependable service.

OA24-24" long, ⅞" thick with two jaws. Provides adjustments from 1⅜" to 2⅞" in ⅛" graduations. Extra jaw permits adjustments from 1 7/16" to 2 11/16" in 1/16" graduations. Weight, only 10 lbs.

OA36-36" long, 1⅛" thick. Adjusts from 2 11/16" to 4¾" in ⅛" graduations. Weight, only 22 lbs.

Save time and money with OTC "Slim-Twins"

WRITE FOR FREE BOOKLET

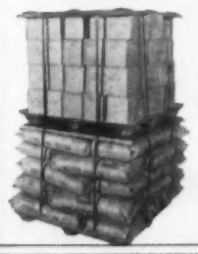
OWATONNA TOOL CO.
436 CEDAR ST., OWATONNA, MINNESOTA

▲ For more details circle NED-680 H7 on enclosed inquiry slip ▲

The ideal shipping container is . . .

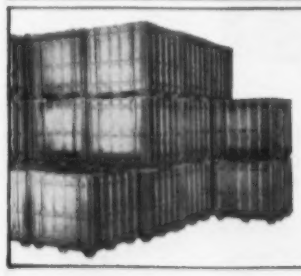
easy to assemble . . .

"One man with a hammer" quickly assembles the Band-Box. Clip fasteners attach easily, securely hold sides and Stack-Lock Corners.



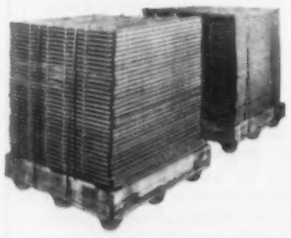
self-palletizing . . .

Every Band-Box bottom is its own pallet. Can be stacked ceiling-high without toppling. Use alone or assembled as a full Band-Box. 4-way entry with hand or power lift-truck.



perfect for storage . . .

The all-steel Band-Box is available with Stack-Lock Corners or full cover for storage protection. It's painted, chemically treated and enameled.



nestable and reusable . . .

Nested, 17 space-saving Band-Boxes take up the same cubic area as one assembled unit. And they can be used over and over again.

Get all these features in the Ackermann BAND-BOX
PATENT APPLIED FOR

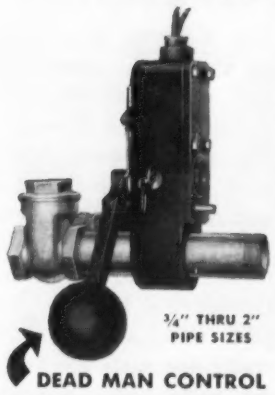
Look at these features in terms of savings. See how *economical* the Ackermann Band-Box is. Your shipping department can save money up and down the line. Get full cost-cutting details on the Band-Box — perfect answer to inter-plant and intra-plant shipping and storage problems. Write, wire or call Ackermann Manufacturing Company (Subsidiary of Wheeling Steel Corporation), Wheeling, West Virginia.

IT'S WHEELING STEEL

WHEELING STEEL

▲ For more details circle NED-678 H7 on enclosed inquiry slip ▲

Bowser remote control valves for hazardous liquids



Do these things

1. Simultaneously control flow of liquid in pipe and start or stop pump.
2. Operate one or more discharge lines from single remote power pump.
3. Provide safety factor required for insurance approval.

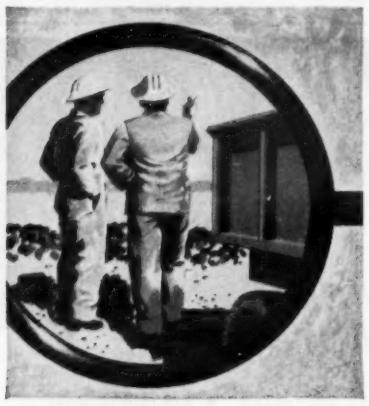
Bowser Figure 221 Remote Control Valve consists of a quick-acting bronze gate valve and explosion-proof mercury switch integrated for easy, in-line mounting on any pipe line. Valve and switch are actuated by weighted handle. When handle is released, flow and pump stop simultaneously.

WRITE FOR BULLETIN 221 BOWSER INC.

Regional Offices: ATLANTA, BOSTON, CHICAGO, CLEVELAND, DALLAS, KANSAS CITY, LOS ANGELES, NEW YORK

1381 E. CREIGHTON • FORT WAYNE, IND.

For more details circle NED-681 H7 on enclosed inquiry slip



It warns men he can't!

BULLARD MECHANICAL

Back-Up Alarm

Almost every day on some crowded job site, with trucks maneuvering forwards and backwards, a driver grinds into reverse... rear vision is blocked... then ... tragedy!

This simple, failproof, mechanical back-up alarm never forgets to warn men behind. A loud klaxon-like bell rings the minute wheels turn in reverse. It is a complete self-contained unit that can be easily installed on almost all vehicles with conventional wheels.

Write for technical literature, installation instructions and test reports

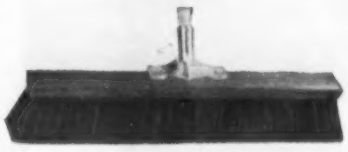
BULLARD
INDUSTRIAL SAFETY EQUIPMENT

E. D. BULLARD COMPANY, Sausalito, California

For more details circle NED-682 H7 on enclosed inquiry slip

MAINTENANCE BRUSHES have cast aluminum handle holder

Flanges of the Strong Arm cast aluminum handle holder strengthen this line of heavy duty maintenance brushes, as well as distribute the pushwork load uniformly. Brushes are available in 4-in. Palmyra and 3⅛-in. Algil fill which is unaffected by gasoline, oil, acids or mildew. Widths are 18 to 36 in. Holder permits use of various handle lengths, prevents twisting and breaking, and is reversible to increase brush wear. Made by **Moran Brush Mfg. Co.**, 30 Manila Ave., Hamden, Conn.



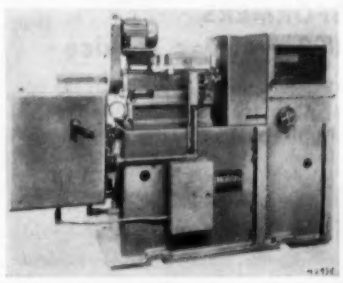
For more details circle NED-683 H7 on enclosed inquiry slip

DIRECT-CURRENT MOTOR produces 2.2 hp in 5.16-in. frame

Blower-cooled, 200-v direct-current motor reaches up to 63 per cent of rated 5500-rpm speed in 0.014-seconds from a standstill. Fast response to control signals adapts unit for automatic machine tool and other automated applications requiring frequent starts, stops, reversals and fluctuating loads. Motor can produce 2.2 hp in its 5.16-in. diameter frame and is 15.5 in. long. It delivers 2.65 lb-ft of torque throughout shaft speed range from standstill to 4500 rpm. Easily applied to most servo systems, motor will operate at all angles and can be powered by any direct-current power supply. Made by **General Electric Co.**, 1 River Rd., Schenectady 5, N. Y.

For more details circle NED-684 H7 on enclosed inquiry slip

GUN DRILLING MACHINES have 6 or 9-in. stroke drill units



One-way and two-way models of standard automatic gun drilling machines provide infinitely variable spindle speeds and feeds, adjustable automatic load control and co-ordinated high pressure coolant and chip removal system. Equipped with 6 or 9-in. stroke Morris Air-Oil-Matic drill units, the machines drill deep holes from ⅛-in. diameter up. They are also suitable for shallow holes where straightness, size and finish are crucial and for high rate of metal removal jobs where finish is not critical. Spindle speeds up to 8000 rpm, feeds up to 40 ipm and infinitely adjustable feed stroke are available. V-block holding devices may be interchanged to accommodate 21 different size pieces. Made by **Morris Machine Tool Co.**, 933-45 Harriet St., Cincinnati 3, O.

For more details circle NED-685 H7 on enclosed inquiry slip

GASKETS · SHIMS WASHERS

From 1 to 1 Million

No matter what type, thickness, shape or quantity required, you can count on Chicago-Wilcox for uniformly accurate gaskets, shims, washers or special stampings.

With 50 years accumulation of dies, chances are we can furnish just what you need without a die charge—thus reducing costs substantially and assuring on-schedule delivery.

Gaskets, shims and washers can be supplied in metallic, non-metallic and plastics . . . teflon, nylon, etc. . . . and in quantities to meet your production requirements.

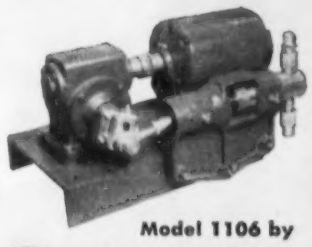
Write for catalog and submit your specifications for quotation.

CHICAGO-WILCOX MFG. CO.
7713 South Avalon, Chicago 19, Illinois

For more details circle NED-686 H7 on enclosed inquiry slip

Your boiler water deserves better treatment

and here's how!



Model 1106 by PROPORTIONEERS

This proportioning pump accurately feeds all chemicals (alkaline, neutral *or* acid!) required for raw water and internal steam boiler water treatment . . . for capacities from 0.11 to 35.6 GPH for discharge pressures up to 1100 psig. PROPORTIONEERS, INC. offers with this pump a guaranteed volumetric accuracy within ±1% . . . from maximum to 1/15 of maximum displacement. Features interchangeable measuring cylinders, unique Vane-Guide check valves, and percentage calibrated stroke-length scale. Bulletin 1106-2 gives complete details. Write to **PROPORTIONEERS, INC.**, 425 Harris Avenue, Providence 1, R. I. . . . division of

PROPORTIONEERS, INC.
DIVISION OF
B-I-F INDUSTRIES
PROVIDENCE, RHODE ISLAND
METERS FEEDERS CONTROLS

For more details circle NED-687 H7 on enclosed inquiry slip

48-HOUR magnetic CHUCK REPAIR SERVICE —*any* electrical chuck!

GUARANTEED FOR ONE YEAR
—just as are new Magna-Lock magnetic chucks

A FIRST-CLASS JOB BY EXPERTS!

Whether your electrical magnetic chuck requires a minor repair or a complete overhauling, it will receive the same exacting care and attention, regardless of make, which go into the manufacture of new Magna-Lock magnetic chucks. Coil winding, dipping, evacuating and impregnating are done by skilled workers using the finest equipment available. And, your chuck is thoroughly tested before it is returned to you.

It will be *right* the *first* time — and will cost you less!

FOR FAST ACTION PHONE 815

Hanchett MAGNA-LOCK CORPORATION
BIG RAPIDS, MICHIGAN, U.S.A.
designers and makers of a complete line of magnetic chucks and devices.

For more details circle NED-688 H7 on enclosed inquiry slip

For Short Cuts and Savings in Engineering Drawing Reproduction

Kodagraph Reproduction Materials eliminate tedious retracing . . . produce better shop prints . . . simplify print production. Whether you make your own prints or use a blueprint, it will pay you to know them.

Kodagraph Repro-Negative Paper gives you positive photographic intermediates directly from blueprints and other negatives.

Kodagraph Contact Paper produces outstanding negatives in contact photocopy printers.

Kodagraph Autopositive Papers and Film produce positive photographic intermediates without a negative step; can be exposed in standard printmaking equipment... processed in standard photographic solutions. Fast, easy roomlight handling!

Kodagraph Projection Papers give you highest quality enlargements from microfilm or other reduced-scale negatives.

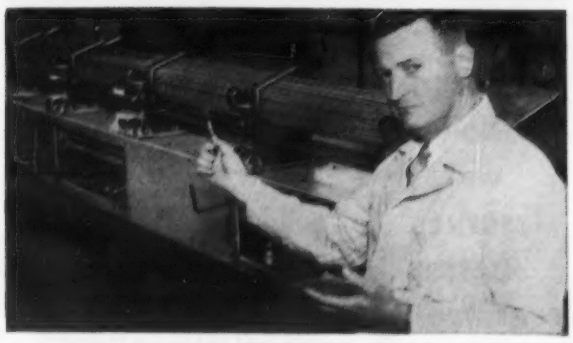
Write today for free booklet

Kodagraph Reproduction Materials

EASTMAN KODAK COMPANY
Graphic Reproduction Division
Rochester 4, N. Y.

Kodak

For more details circle NED-689 H7 on enclosed inquiry slip



LIPE AUTOMATIC MAGAZINE-LOADING BAR FEEDS GUARANTEE 30% PRODUCTION INCREASE . . .

Find out how much more you can get!

Actual case histories offered by present users of the Lipe AML Bar Feed show production increase of *over* 200%! With figures like these you can visualize what man-hour savings may be produced. Owners realize significant material waste reductions, too.

If your production set-up uses automatic screw machines, centerless grinders, turret lathes, punch presses, thread rollers, shears, etc., write or wire for a FREE Lipe Sales Engineering estimate. For folder and complete details contact Dept. BF.

Lipe-ROLLWAY CORPORATION SYRACUSE 1, N. Y.

MACHINE TOOLS • HEAVY-DUTY AUTOMOTIVE CLUTCHES • PORTABLE POWER HACK SAWS

▲ For more details circle NED-690 H7 on enclosed inquiry slip ▲

Sales volume up . . . net profit down . . .

why not do something about it?

Cut material handling costs with MOTO-TRUC

Pallet Type "Walkie" truck 4000-6000 lbs. capacity

Hi-Lift "Walkie" Type 3000-4000 lbs. capacity

Platform "Walkie" Type 4000-10,000 lbs. capacity

Grip-All Tractor

MOTO-TRUC will be one of the best investments you ever made. Modern functional design and rugged dependability assure lowest operating costs. Small size and easy maneuverability enable MOTO-TRUCs to work efficiently in tight spots where larger trucks can't.

MOTO-TRUC builds only the rugged, powerful, quick moving "Walkie" and "small rider" trucks. Any business with material handling problems regardless of its size, needs MOTO-TRUCs.

MOTO-TRUCs' many exclusive and important features insure efficient and economical operation, and many, many years of faithful service.

Help to lick old man "overhead" by putting MOTO-TRUC on the job. Your local Dealer will give you full details. He'll be glad to help you solve your material handling problems.

We'll be glad to send you catalog No. 56W Walkie Trucks and No. 56R Rider Trucks upon request.

Builders Of The The First Walkie Truck

The MOTO-TRUC Co.

1961 E. 59th St. • Cleveland 3, Ohio

Pallet . . . Platform . . . Hi-Lift Trucks

Representatives in Principal Cities

▲ For more details circle NED-691 H7 on enclosed inquiry slip ▲

SAFETY HAT & CAP
plastic type resists 20,000 v

Injection molding plastic used in Life Guard safety hat and cap surpasses Edison Institute requirment, resisting over 20,000 v. Material also passes Federal specifications for construction workers' headgear. Hat and cap types in white, yellow and gray have strength and flexibility to cushion impact and a soft sweatband all around. Headband adjusts to marked hat sizes from 6½ to 7¾. Nonmetallic chin straps and winter liners are available. Made by **Jackson Products,** 31741 Mound Rd., Warren, Mich.

▲ For more details circle NED-692 H7 on enclosed inquiry slip ▲

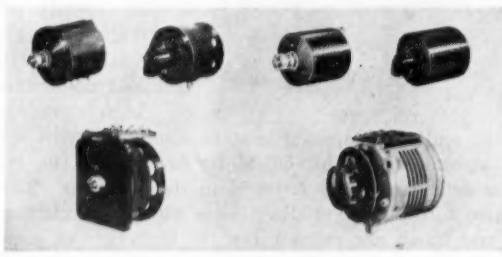
SMALL PHOTOELECTRIC RELAY
suitable for industrial control

Plugged into any 120-v circuit, this miniature photoelectric relay contains sensitive switching element, power supply and photocell lens in compact 4¼ x 2⅛ x 1 ⅝-in. machined aluminum case. Any type of light source can be used, including standard household lamps. Available in splice box and plug-in types, it mounts on ½-in. conduit. List price is $35. Made by **Tri-Tronics Co.,** Dept. N, 2607 St. Charles Rd., Bellwood, Ill.

▲ For more details circle NED-693 H7 on enclosed inquiry slip ▲

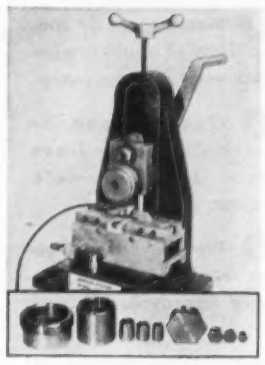
VARIABLE TRANSFORMERS
for 400 and 800-cycle ac service

Designed for single and three-phase 400/800-cycle operations, Powerstat variable transformers deliver a continuously adjustable voltage from alternating current power lines. Manual and motor driven air-cooled models are offered in 56-va to 8.7 kva ratings for 28, 120, 240 and 480-v service. Sturdy and compact, they meet many military specifications for temperature, vibration, shock and corrosion resistance. Made by **Superior Electric Co.,** Dept. NED, 83 Laurel St., Bristol, Conn.



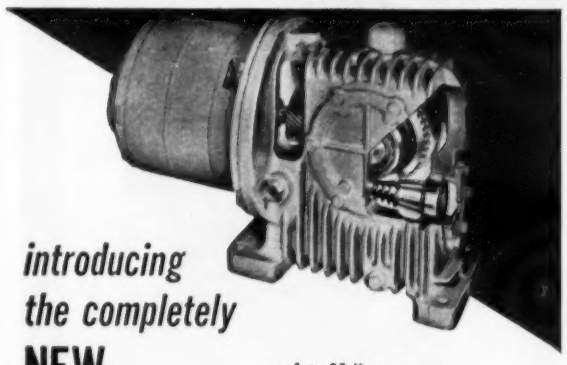
▲ For more details circle NED-694 H7 on enclosed inquiry slip ▲

G-R-D MARKING FIXTURE
for hex plugs and around sleeves



For stamping hex plugs or around the circumference of sleeves this new Style B GRD Stamping Fixture has been developed. Uses cradles for circumference of sleeves and a special table (illustrated) for marking hexes. Components include: (1) cast steel housing, (2) cradle and table for holding parts being marked, (3) roller marking die, and (4) gear-mounted handle. As the handle is turned, the gear arrangement causes the die to move across the piece held in the cradle or table. For marking on the edge of a hex, the table is positioned over the cradle. Adjustable gauges are provided to make a nest for holding plugs; screw adjustment on side sets nest in proper position for making contact with the die. Made by M. E. CUNNINGHAM COMPANY, 1055 Chateau Street, Pittsburgh 33, Pa. *Advt.*

▲ For more details circle NED-696 H7 on enclosed inquiry slip ▲



introducing the completely **NEW Cone-Drive GEARMOTOR**

- 1 to 25 Horsepower
- Extended shaft
- Shaft mounted
- 27 Output speeds
- Standard NEMA D-flange motors
- Compact double-enveloping worm gear design for high efficiency
- High output torque ratings
- **Ask for catalog 57. It's free!**

CONE-DRIVE GEARS
Division, Michigan Tool Company

DOUBLE ENVELOPING GEAR SETS & SPEED REDUCERS

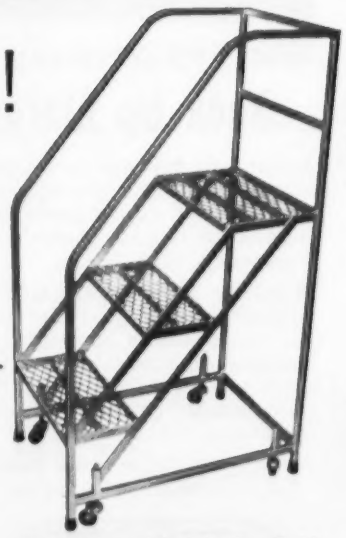
7171 E. McNICHOLS ROAD • DETROIT 12, MICHIGAN

▲ For more details circle NED-697 H7 on enclosed inquiry slip ▲

HERE THEY ARE!

ALCO-LITE All Steel Ladder-Stands that handle so easily you might think they were made of aluminum!

A gentle push will guide an Alco-Lite Steel Ladder-Stand anywhere you want it!



FREE CATALOG shows you why!

1 to 8 Step Models Available

Aluminum Ladder Company
WORTHINGTON PENNSYLVANIA

▲ For more details circle NED-695 H7 on enclosed inquiry slip ▲

MARSHALLTOWN

Capacities from 18 Gauge to ½"
Cuts any SIZE . . . any SHAPE

America's finest for every cutting job—straight, irregular or circular patterns.
Speedy—up to 6 ft. per minute. Efficient, easy to operate.
Built for extra heavy duty use. High grade tool steel cutters.

Write today for details and prices.

MARSHALLTOWN MFG. CO., Marshalltown 2, Iowa

For more details circle NED-698 H7 on enclosed inquiry slip

with
EC&M
Lightweight
MAGNETS

• For fast-moving boom or crawler cranes, these EC&M Magnets (wound with aluminum strap conductor) give high lifts on light (wind-blown) scrap. They keep balers at top output ...place bales into cars...and handle heavier grades of scrap effectively.

Write for **BULLETIN 900-L**

THE ELECTRIC CONTROLLER & MFG. CO.
A DIVISION OF THE SQUARE D COMPANY
CLEVELAND 28 • OHIO

7932

For more details circle NED-699 H7 on enclosed inquiry slip

cut costs

with Binks' NEW CP portable spray outfit...

A complete, portable spray painting outfit for the professional. Compact...powerful...rugged...yet complete outfit weighs only 45 lbs. Plugs into any standard 110-115 volt a.c. outlet. Wide selection of spray guns available. Ideal for shop maintenance, touch-up work, finishing small parts, dusting, and other on-the-spot jobs. Pulsation chamber smooths out air flow. Deep-finned aluminum cylinder head and new automotive-type cooling fan assure cool operation. No oil is used in this compressor...therefore oil is never present in the air line. Years of trouble-free service.

Send for Bulletin P. C.
Describes CP units and Binks' two new portable spray painting outfits. For your free copy, write to the address below:

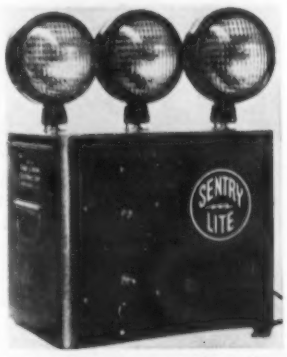
Binks
EVERYTHING FOR SPRAY PAINTING

Binks Mfg. Co.
3122-34 W. Carroll Ave.
Chicago 12, Ill.

REPRESENTATIVES IN PRINCIPAL U.S. & CANADIAN CITIES • SEE YOUR CLASSIFIED DIRECTORY

For more details circle NED-700 H7 on enclosed inquiry slip

EMERGENCY LIGHT
floods large area on power failure



Three 5000-cp sealed-beam lamps of this self-contained model 300X Sentry-Lite will illuminate a large area for up to 6 hours under emergency conditions. Automatic charger keeps battery at peak capacity from regular power line. Unit lights automatically when power fails. Controls include a test switch, fuse, toggle switch and pilot light. Made by **American Optical Co.**, Safety-Sun Glass Div., 1492 Mechanic St., Southbridge, Mass.

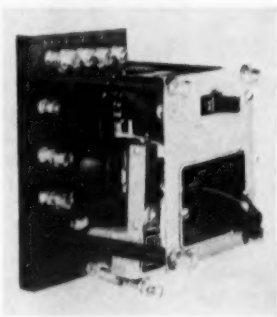
For more details circle NED-701 H7 on enclosed inquiry slip

INDUSTRIAL GLOVE
extremely thin for sensitive feel

Jobs requiring extreme finger sensitivity can be done with the Nimble Finger industrial glove which is thinner than surgeon's glove, yet resistant to corrosive substances. Made of vinyl Pylox (TM), glove has high nonallergenic properties and can be worn all day due to textured inside finish. Gloves can be turned inside out and worn reversed for jobs requiring nonslip grip. They resist normal acids, alkalies, oils, greases and some solvents, and are useful on jobs where products handled must be protected from bacteria or perspiration. Small, medium and large sizes are offered and are 10½ in. long, affording ample wrist protection. Made by **Pioneer Rubber Co.**, 634 Tiffin Rd., Willard, O.

For more details circle NED-702 H7 on enclosed inquiry slip

ENGINE REMOTE CONTROL
for stand-by electric plant

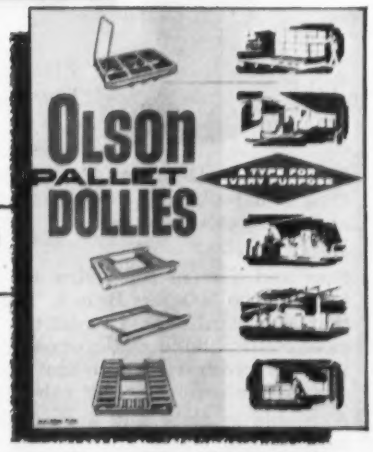


Pushbutton-started electric plants can be adapted for use as stand-by plants by installation of this gasoline engine remote control unit. This adapter kit contains the disconnect units and a four-position switch (manual, stop, automatic and test). Transfer switch with which it is used must have one contact which opens when the normal source fails and a second contact which closes when the normal source fails. Made by **Automatic Switch Co.**, 52-AA Hanover Rd., Florham Park, N. J.

For more details circle NED-703 H7 on enclosed inquiry slip

Get this CATALOG *now!*

APPLICATION TIPS
MONEY-SAVING IDEAS
NEW DESIGNS



Write today for your copy of the new Olson Pallet Dolly catalog. Illustrates the complete line, showing applications, new uses, new designs. Before you buy another pallet dolly, see what Olson has to offer. There's no obligation!

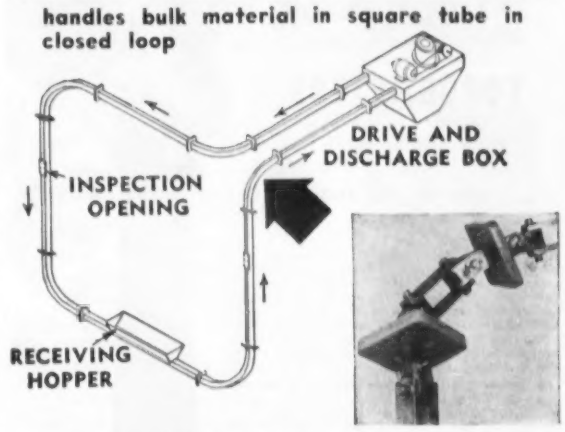
OLSON CONVEYORS
SERVING AMERICAN INDUSTRY SINCE 1900
SAMUEL OLSON MFG. CO., INC.
2429 BLOOMINGDALE AVE
CHICAGO 47, ILLINOIS
Offices in Principal Cities

For more details circle NED-704 H7 on enclosed inquiry slip

"Tube-Veyor" (Trademark Pat. Pend.)

CHAIN FLIGHT CONVEYOR

handles bulk material in square tube in closed loop



Flight-equipped chain is flexible in TWO directions so the tube in which it travels can be curved horizontally or vertically. The tube forms a closed loop as shown. Materials handled can be chips, flour, salt, sawdust, grain, coal, starch. Sizes are 3, 4 and 6 in. in cross section. Capacity is .45 to 2 cfm. at 10 fpm. speed. Engineered to your specifications.

Ask for Catalog #500
Dept. N

PRAB CONVEYORS, INC.
30121 GROESBECK HIGHWAY ROSEVILLE (Detroit), MICH.

For more details circle NED-705 H7 on enclosed inquiry slip

SNAP-LOCK
TRADE MARK

LIMIT SWITCHES

SNAP-LOCK Limit Switches have separate enclosures within a single housing for mechanical and electrical sides. Can be furnished WATER and OIL TIGHT.

The STANDARD of Limit Switches, SNAP-LOCK can be used for single, double or distribution circuit wiring—AC or DC. Self-wiping coin silver contacts insure quick action make and break. Simple snap-action locking mechanism for long-lived trouble-free operation has ample overtravel plus safety travel. Variety of standard operating levers available.

Send for BULLETIN EM-51, or let us discuss your Limit Switch problems with you.

Electrical Manufacturing Division
National Acme
The National Acme Company • 182 E. 131 St., Cleveland 8, Ohio

For more details circle NED-706 H7 on enclosed inquiry slip

WHERE ACCURATE BOLT TENSION IS REQUIRED

Snap-on TORQOMETERS

. . . MAKE PRECISION TENSIONING EASY AS READING A WATCH

Even veteran mechanics cannot be expected to *guess* correct bolt and stud tension . . . or estimate even close to uniform accuracy. But with a Snap-on Torqometer the most inexperienced worker can hit the specified pressure *every time* . . . right to the correct inch-pound or foot-pound . . . and do it swiftly and confidently! He *sees* the pressure as the nut is turned . . . easily as reading a watch!

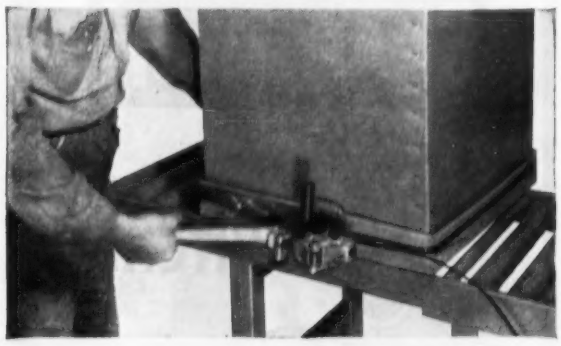
On fine assembly and maintenance operations, Snap-on Torqometers insure precision, eliminate the danger of mechanical distortion. As easy to use as an ordinary wrench. Available in a full range of capacities, from 150 in. lbs. to 2,000 ft. lbs. Write for full information.

* Snap-on is the trademark of Snap-on Tools Corporation

SNAP-ON TOOLS CORPORATION
8110-H 28th Avenue • Kenosha, Wisconsin

For more details circle NED-707 H7 on enclosed inquiry slip

Signode one-hand strapping tool is easier, faster to use



Here's a complete, semi-automatic tool you can operate with *one hand!* It tensions, seals and scores the strapping in one continuous operation. Weighing only 6½ pounds, it is the only one-piece, one-hand strapping tool made. Its light weight makes it easy to apply strapping on the side of a package or on narrow surfaces such as crates and small containers. An operator using this tool can carry on the strapping operation with one hand while draping the strap on the container with the other. For ½", ⅝" and ¾" strapping. Ask for literature on *Signode's SFC Strapping Tool.* Circle inquiry number, or write

SIGNODE STEEL STRAPPING CO.
2643 N. Western Avenue, Chicago 47, Illinois
Offices coast to coast.
Foreign Subsidiaries and Distributors World-Wide
In Canada: Canadian Steel Strapping Co., Ltd., Montreal • Toronto

For more details circle NED-708 H7 on enclosed inquiry slip

ONLY NEW HALLOWELL *ERECTOMATIC* STEEL SHELVING

gives you all these plus features

- Fast assembly
- Fast shelf change or addition
- Straight-in, straight-out shelf change
- Independent shelf positioning
- Full use of shelf area
- Common side panels and posts
- Beaded posts and flanged shelves
- Full-depth shelf supports
- 4 classes of shelves

Investigate Hallowell ERECTOMATIC® before buying shelving. You'll find it easy to assemble and rearrange, economical to maintain. It is made of prime steel, is phosphate coated and finished in SPS green baked-on enamel. Other colors are available. Hallowell ERECTOMATIC is sold through leading industrial distributors and shop equipment dealers. Write us for complete information. Hallowell Shop Equipment Division, STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

STANDARD PRESSED STEEL CO.
HALLOWELL® SHOP EQUIPMENT DIVISION SPS JENKINTOWN PENNSYLVANIA

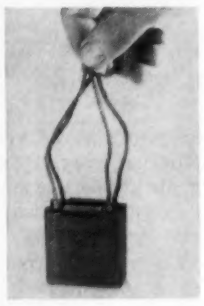
For more details circle NED-709 H7 on enclosed inquiry slip

SPEED CHANGER has a variable 6½ to 1 ratio

Machine speeds can be changed instantly without stopping the motor by the Ratex self-compensating, floating pulley type speed changer. Usable on drill presses, machine tools, power and feed controls, conveyors, timing devices and other equipment, it has a variable speed range in a 6½ to 1 ratio. It is easily installed on any standard 2¾-in. drill press support post. Angle brackets for installation in horizontal or vertical positions are available. Made by **Custanite Corp.**, Dept. N, 1228 Utica Ave., Brooklyn 3, N. Y.

For more details circle NED-710 H7 on enclosed inquiry slip

MOTOR & GENERATOR BRUSHES equipped with shock absorbing cap



Entire line of Speer motor and generator brushes, including Multiflex and solid types, is now available with a hard rubber cap laminated to a protective neoprene pad for shock absorbing purposes. Cap receives the initial impact of shock and vibrations transmitted from machine to brush holder, protecting the softer pad from excessive wear and compression. Made by **Speer Carbon Co.**, Dept. ED, St. Marys, Pa.

For more details circle NED-711 H7 on enclosed inquiry slip

PORTABLE FILTER & PUMP capacity is 800 gpm

By-pass valve incorporated in the BS-3 portable liquid clarification filter permits its pump to be used for solution transfer. Unit is 36 in. high, requires 1½ sq ft of floor space and has a capacity of 800 gph. An annular stainless steel mesh element filters through both the inner and outer surfaces. Filtering element, attached to the tank cover, is cleaned in 15 minutes. Filter can be readily converted for use with standard porous stone membrane. Extra low carbon stainless steel, rubber lined or all-iron construction are available. Made by **Sel-Rex Corp.**, 71 River Rd., Nutley 10, N. J.

For more details circle NED-712 H7 on enclosed inquiry slip

A NEW O-B VALVE

to lick . . . your throttling problems

Try this new O-B Plug Type valve where throttling is a problem . . . watch how it gives long and satisfactory service.

Here's why!

Seat and disc in this valve are stainless steel, hardened to 500-plus Brinell. They are so tough that even hard-to-hold steam can be kept under close control. Sand, scale, or other foreign matter is easily crushed between seat and disc without scoring the surfaces when valve is closed.

Available in globe and angle types for 150 lbs. and 200 lbs. WSP.

For further information contact the O-B distributor in your area, or write to Ohio Brass Company, 380 North Main Street, Mansfield, Ohio.

4732-V

O-B VALVES Ohio Brass MANSFIELD OHIO, U. S. A.

For more details circle NED-713 H7 on enclosed inquiry slip

Combines fine engineering *and* economy!

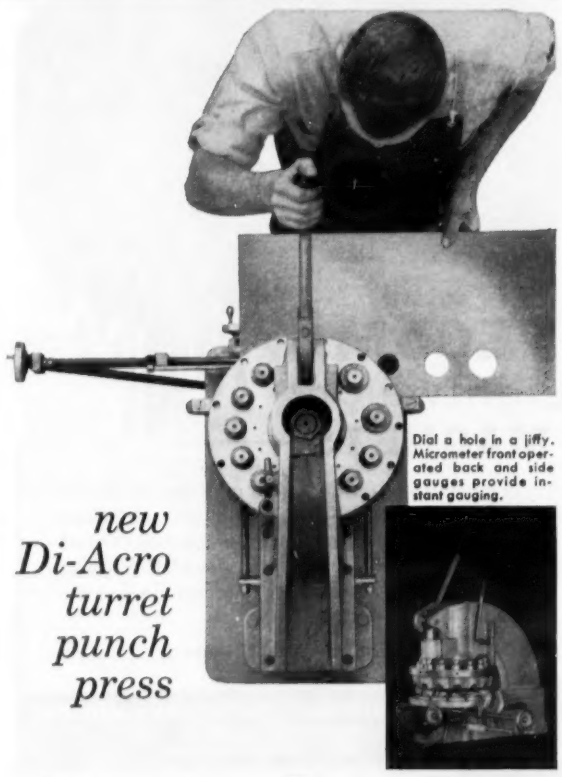
. . . new FOXBORO Pressure Transmitter

- Scale easily readable at 20 ft.
- Standard time-proved component parts
- Simple calibration "on location"
- Compact integral instrument

The new Foxboro M/44 Pneumatic Pressure Transmitter gives you a unique combination of fine engineering and economy. It's a compact, integral instrument . . . no attachments or "makeshifts." Utilizing standard, performance-proved Foxboro parts throughout, it assures you not only top performance, but easier stocking and servicing as well. "Convenience-design" makes calibration in the field a cinch. Drawn-steel, weatherproof, air-purged case with tough polyester plastic cover. A neat, high-efficiency, low-cost instrument for centralized operation or control. All standard ranges. Write for full details. **The Foxboro Company, 668 Norfolk St., Foxboro, Mass.**

FOXBORO REG. U. S. PAT. OFF. INSTRUMENTATION

For more details circle NED-714 H7 on enclosed inquiry slip



new Di-Acro turret punch press

Accurate Burr-Free Punching at 12 Rotating Stations

The new Di-Acro 4 Ton Turret Punch Press provides rapid, close tolerance punching of round, square, oval and rectangular holes from 1/16" to 2".

Rotating turrets provide rapid indexing for single or sequence punching. Precision hole location quickly obtained with Microtwin gauges. Punches sheet metals up to 16 gauge mild steel, fibreboard, asbestos, paper, cork, leather, rubber, plastic and other sheet materials.

Dies are mounted in turrets—always handy. Standard clearance between punch and die is .002". Choice of 6 other clearances at no charge. The Di-Acro Turret Punch Press is safe, simple to operate—requires little maintenance.

Consult the Yellow Pages of your phone book for the name of your Di-Acro distributor or write us for catalog describing this and other Di-Acro machines.

pronounced die-ack-ro

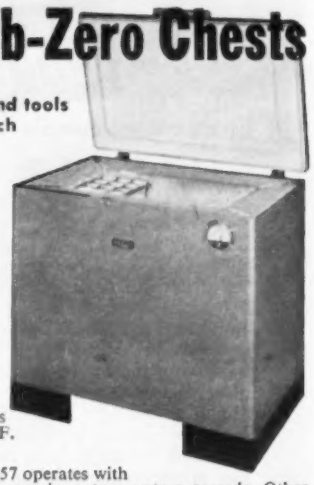
di-acro PRECISION METALWORKING MACHINES

O'NEIL-IRWIN MFG. CO.
354 8th Avenue • Lake City, Minn.

For more details circle NED-715 H7 on enclosed inquiry slip

REVCO Sub-Zero Chests

- for shrink fits
- for seasoning gauges and tools
- for testing • for research
- for processing to −140°



Model RSZ503 Rivet Cooler (shown) equipped with 90 rivet canisters, temperatures to −30° F. 110V, 60 cycle, single phase.

Model SZH153 with temperatures to −95° F. 110V; 60 cycle, single phase.

Model SZH653, larger capacity, temperatures to −85° F. 110V, 60 cycle, single phase.

Model SZHC657. Same capacity as SZH653 but attains temperature as low as −140° F. 220V, 60 cycle, single phase.

Refrigeration: Model SZHC657 operates with 3 Tecumseh hermetic compressors in a two system cascade. Other Sub-Zeros use 2 hermetics in a two stage system. Rivet Cooler operates with single hermetic unit. All models equipped with efficient fan-cooled condensers — no liquid coolant required. *Write Today for Full Specifications and Prices.*

Description	Model	Cu.Ft.	Temp. Range		Outside Dim.			Inside Dim.		
			Rm. 70°	Rm. 110°	L	W	H	L	W	H
Sub-Zero	SZH153	1.5	−95° F.	−85° F.	42"	28"	42¼"	23"	9"	12½"
Sub-Zero	SZH653	6.5	−85° F.	−75° F.	60"	28"	42¼"	47"	15"	16"
Sub-Zero	SZHC657	6.5	−140° F.	−125° F.	60"	28"	42¼"	47"	15"	16"
Rivet Cooler	RSZ503	5.0	−30° F.	−20° F.	42"	28"	41"	30"	16"	18"

REVCO, Inc.
Setting Trends in Refrigeration since 1938 — Deerfield, Michigan

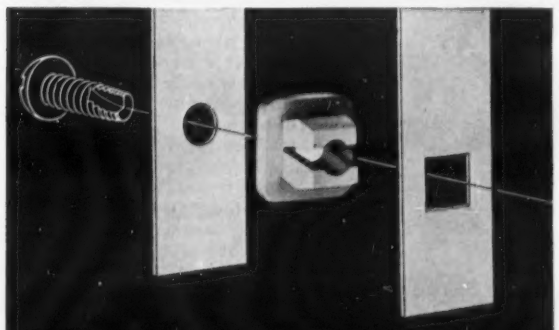
For more details circle NED-716 H7 on enclosed inquiry slip

ONLY ONE MOTOR DOES THE JOB BEST

Peerless has hundreds of motors—many designed for specific applications. These motors were job-engineered to get the utmost in efficiency from the machines they drive. Bring your motor problems to Peerless. Our engineers will work with you to produce the one motor that powers your product best.

ELECTRIC MOTOR DIVISION
THE Peerless Electric COMPANY
FANS · BLOWERS · MOTORS · ELECTRONIC EQUIPMENT
1506 W. MARKET ST. • WARREN, OHIO

For more details circle NED-717 H7 on enclosed inquiry slip



NEW!

New nylon Plasti-Grommets can reduce costs of nearly any assembly. It snaps into prepared hole, stays tight even under severe vibration, is non-corrosive, non-conductive, won't chip or craze, is available in any size, any color.

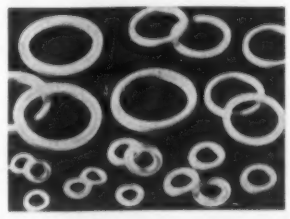
Write for Booklet today.

FASTEX®
PLASTI-GROMMETS®
BLIND SCREW RECEPTACLES LOCK TIGHT, SAVE ASSEMBLY TIME!

FASTEX itw
195 Algonquin Road, Des Plaines, Illinois
In Canada: SHAKEPROOF-FASTEX, Division of Canada Illinois Tools Ltd., Toronto, Ont.
A DIVISION OF ILLINOIS TOOL WORKS

For more details circle NED-718 H7 on enclosed inquiry slip

TEFLON CHEVRON SEALS
prevent leakage at −350 to 500° F



Highly flexible and dimensionally stable Fluorlastic Teflon is used to make these molded dynamic and static chevron seals. Material has excellent chemical, electrical and mechanical properties, and will maintain size and leakproof characteristics at temperatures from −350 to 500° F and pressures from 0 to 1000 psi. Seals resist all chemicals, fuels, solvents and hydraulic oils. They can be used in both rotational and longitudinal service in component metal parts as well as static positions. Made by **Joclin Mfg. Co.**, 23 Lufbery Ave., Wallingford, Conn.

For more details circle NED-719 H7 on enclosed inquiry slip

QUICK-CHANGE TOOLS
for automatic screw machines

Preset feature of quick-change tools provides accurate reproduction of parts and eliminates in-the-machine adjustments. Designed for multiple spindle automatic screw machines, the front and rear removal type tools minimize downtime and accommodate a broad range of tools and installation requirements. Resharpened tools are preset in an adapter while the machine is operating. They can be combined with Toolitrol counter which keeps track of production and signals when a change is needed. Made by **Scully-Jones & Co.**, 1916 S. Rockwell St., Chicago 6, Ill.

For more details circle NED-720 H7 on enclosed inquiry slip

FIRE ALARM SYSTEM
for medium and small factories

Zonalarm automatic fire alarm system, designed to meet the needs of medium and small factories, is easily installed by plant electricians. It continues protection in the event of normal power failure, utilizes pushbutton testing of the entire system, and uses low voltage wiring. UL-listed thermostatic detectors on the ceiling are automatic, self-contained and self-restoring. Each protects up to 400 sq ft of potential fire hazard area. Warning is in the form of one or more bells or horns. Lighted windows on a centrally located panel show the fire location. Options include extension or outdoor alarms and extra panels. Made by **Edwards Co.**, 92 Connecticut Ave., Norwalk, Conn.

For more details circle NED-721 H7 on enclosed inquiry slip

how much can you SAVE on loading, sealing or imprinting corrugated cases?

Put your production-line in high-gear with fully-automatic Packomatic machines which go all the way — or any part of the way — with corrugated shipping containers. Install a new packaging line or add to your present operation. Automate to save time, money. WRITE FOR COMPLETE BROCHURE No. 50A on forming, loading, sealing and imprinting equipment.

BALE SEALERS • CASE SEALERS • CASE IMPRINTERS
CASE FORMER-LOADERS • VOLUMETRIC FILLERS

Packomatic

J. L. FERGUSON COMPANY • JOLIET, ILLINOIS

For more details circle NED-722 H7 on enclosed inquiry slip

Ideal for Hot Weather Use!

New Efficiency

The sensational new FLEX-A-PRENE Paint Mask keeps out paint pigments and solvents with amazing efficiency, yet it's light (just 1 ounce), comfortable and so easy to talk and breathe through you hardly know you're wearing it.

New Economy

FLEX-A-PRENE's low first cost is only part of the story. Most important savings come from its endurance in service and time saved through less frequent filter replacements. You can expect at least 100 hours of exposure before filter replacement is necessary.

Sample: $1.50 postpaid
(INDUSTRIAL PRICE ONLY)
FLEXO PRODUCTS, INC. Cleveland 13, Ohio

For more details circle NED-723 H7 on enclosed inquiry slip

We'll make it from ALUMINUM!

ELECTRONIC CABINETS
Also phone booths. Shipping drums, tote boxes, pallets, tanks. Process equipment. Welded pipe. Farm gates. Floats.

Let Alcoa's Jobbing Division bid on your complex or long-run jobs in fabricated aluminum. We have the men, the machines, the technical know-how PLUS the help of Alcoa's giant research facilities. Call your Alcoa sales office for more information on Alcoa's Jobbing Division.

ALCOA JOBBING DIVISION FACILITIES

FREE BOOK!

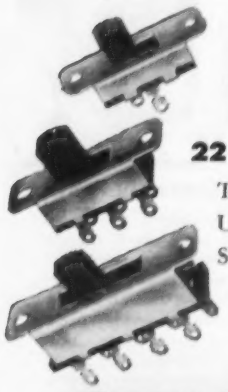
Describes equipment of Alcoa Jobbing Division. Shows kinds of jobs handled. 16 pages, easy reading, many pictures. Circle the Inquiry Card, or write: Aluminum Company of America, 1951-H Alcoa Building, Pittsburgh 19, Pa.

For more details circle NED-724 H7 on enclosed inquiry slip

LOW COST SWITCHES

FOR ALMOST ANY ELECTRICAL PRODUCT

Low-priced Stackpole slide switches provide practically any needed switching arrangement for appliances, instruments, radios, TV sets, small motors and electrical toys. They're sturdy, fully dependable, small in size.



22 STANDARD TYPES

Types from .5 to 3 amperes A.C. Underwriters approved. Write for Slide Switch Bulletin RC-9B to:

Electronic Components Division
STACKPOLE CARBON CO.
St. Marys, Pa.

STACKPOLE

Fixed and Variable Resistors • Iron Cores • Ceramag® ferromagnetic Cores • Molded Coil Forms • "GA" low-value Capacitors

▲ For more details circle **NED-725 H7** on enclosed inquiry slip ▲

always VISIBLE ...always ACCESSIBLE!

Palletainers stack easily and safely to any practical height. They're tip-proof and sag-proof even under the heaviest loads.

Palletainers fold flat to save 75% of their open size for storage or more economical return-shipping rates. They are fast and easy to set up or fold down.

Make your floor space do double, triple—even quadruple duty—by warehousing your working storage or inventory in USP Palletainers. Only Palletainers offer you so many recognized advantages for the transport, safe stacking, storing of your materials.

Palletainers handle *anything* better! They increase your production efficiencies, improve your plant's appearance and quickly pay for themselves in man hours and space saved.

Palletainers are practically indestructible—built to endure rough, fast handling for years to come. Palletainer users tell us they estimate their units *minimum* life span at 8 to 10 years. They are available in a wide range of sizes, types, styles and loading capacities from 500, 1250, 2000, 4000 and 6000 pounds per unit.

Why not see for yourself how many places USP Palletainers could save you time, money and effort in *your* plant. USP will supply standard Palletainers for 60 day testing upon request.

PALLETAINERS

manufactured by **UNION STEEL PRODUCTS CO. ALBION, MICHIGAN**

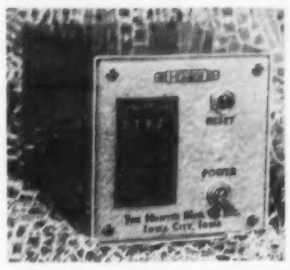
Gentlemen: Please send me my copy of the big, new illustrated USP Palletainer booklet at once.

Name _____ Title _____
Company _____
Address _____
City _____ Zone _____ State _____

☐ Please have your Palletainer representative contact me.

▲ For more details circle **NED-726 H7** on enclosed inquiry slip ▲

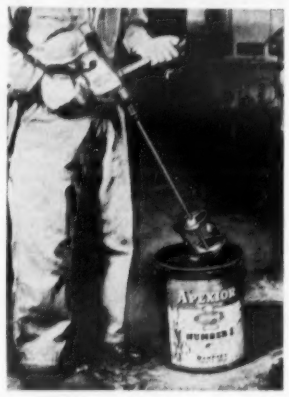
ELECTRIC COUNTER
actuated by switch or other pick-up



Up to 20 counts per second are registered by this compact model 140A electric counter in range of 1 to 9999. Actuation is by remotely located Micro Switch or other circuit closing device. Powered from any 110-v ac line, it has gray crackle-finish case, reset push-button and on-off toggle switch. Model 140B handles up to 10 counts per second. Made by **Hunter Mfg. Co.,** Dept. A, 108 S. Linn St., Iowa City, Iowa.

▲ For more details circle **NED-727 H7** on enclosed inquiry slip ▲

POWDER & LIQUID MIXER
driven by portable power tools



Aluminum and lead base paints, powders, latex and other products can be mixed by this attachment for almost any electric or pneumatic portable power tool. Device can be used in open containers without splashing or cutting into container walls. No air is sucked into the mix. Device is moved by the operator to free solids from container walls and bottom. Made by **Jiffy Mixer Co.,** 517 Market St., San Francisco 5, Calif.

▲ For more details circle **NED-728 H7** on enclosed inquiry slip ▲

MARKING MACHINE
permanently marks hard metal parts

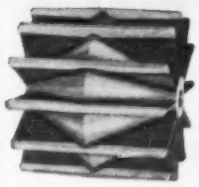
Developed to mark numbers on hard parts such as buckets and compressor vanes for jet engines, this high cycle, short stroke vibratory marking machine cannot distort or harm the precision parts. Up to 45 light vibratory strokes per second permanently indent the characters on the part. Using hand fed fixtures, parts are marked at rates to 500 per hour. When equipped with automatic feed and timing, production is reportedly over 700 per hour. Made by **Defiance Machine & Tool Co.,** 1928 S. Vandeventer Ave., St. Louis 10, Mo.

▲ For more details circle **NED-729 H7** on enclosed inquiry slip ▲

DESIGNED TO CUT BELT COSTS

SPROUT-WALDRON

BELT-SAVER PULLEYS



Write for Bulletin 33-C

The life of conveying belts can be increased from 50% to 400% with unique Belt-Saver Pulleys in installations handling sharp lumps and abrasive materials. Such materials slide away from the pulleys because of the special cone and wing design so belts cannot be damaged. For applications ranging from the handling of stone and gravel to wood chips and foundry sand, Belt-Savers are big money savers.

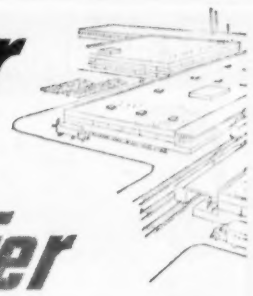
Sprout-Waldron also offers a full line of cast-iron pulleys for transmission and conveyer use that provide top economies. Write for details.

IN/500

SPROUT-WALDRON
Manufacturing Engineers Since 1866
8 LOGAN STREET • MUNCY, PA.
EQUIPMENT FOR SIZE REDUCTION—MIXING & BLENDING — BULK MATERIALS HANDLING — PELLETING & CUBING — PRODUCT CLASSIFICATION

▲ For more details circle **NED-731 H7** on enclosed inquiry slip ▲

Safer liquid transfer

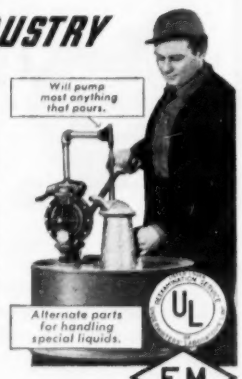


for MODERN INDUSTRY

Want to handle industrial liquids with greater safety? Then install Tokheim hand pumps—specially adaptable to maintenance and production work. They help prevent spilling, slopping, over-filling, dripping. Your plant is kept cleaner—work is speeded—waste halted—accidents prevented.

Operating on both forward and backward strokes, these efficient pumps deliver 20 gallons per 100 strokes. Available with hose or spout outlets—also other interchangeable accessories. No plant should be without a battery of Tokheims.

Call your dealer, or Tokheim representative; write today for literature—including approved list of liquids.



QUALITY TOKHEIM HIGH-VACUUM HAND PUMPS

General Products Division
TOKHEIM CORPORATION
DESIGNERS AND BUILDERS OF SUPERIOR EQUIPMENT SINCE 1901
1656 Wabash Ave. Fort Wayne 1, Ind.
Subsidiaries: Tokheim N.V., Leiden, Holland—GenPro, Inc., Shelbyville, Ind.
Factory Branch: 475 Ninth Street, San Francisco 3, California
In Canada: Tokheim-Reader of Canada, Ltd., 205 Yonge St., Toronto, Ont.

▲ For more details circle **NED-732 H7** on enclosed inquiry slip ▲

BIG···FAST AND ECONOMICAL

Here's the finest metal cutting band saw available anywhere today... and, at the lowest price. The big, rugged Johnson Model J easily and accurately handles 10" rounds, 18" flats—affords a quick, simple set up plus entirely automatic operation. Beautifully designed and engineered, yet a brute for work, the versatile Model J is immediately available in the standard wet or dry models to suit your needs.

The big, dependable Model J will cut *anything* in your stock pile—faster and more accurately. See for yourself, how much time, labor and production dollars you can save with a Johnson saw.

OTHER MODELS AVAILABLE

Other nationally popular members of the Johnson line of metal cutting Band Saws include the 5" x 10" capacity Model "B" (wet or dry), the unique versatile mobile Model "M" and the Johnson Adjustable Stock Stand.

SPECIFICATIONS

Capacity—10" rounds, 18" flats
Motor—½ H. P. Ball Bearing any voltage available, single or polyphase (¾ H. P. on wet machine)
Wheel Diameters—16"
Floor Space—66" x 31"
Bed—11" wide, 44" long, 6" deep, 24" high
Overall Height (Closed)—39"
Blade Length—11' 5" x ¾" x 032" All Standard blades of these specifications can be used.
Weight—Approximately 750 lbs. Crated 800 lbs. Boxed for export 875 lbs.
Speeds—35, 90, 130, 190 feet per minute
Casters—Optional at slight extra cost

Johnson MANUFACTURING CORPORATION
BARNES & TAYLOR STS. • ALBION, MICH.

Eastern Distributor
R. J. R. Kelly Co.
Hale Bldg., 519 Main St.
East Orange, N. J.

Mid-Western Distributor
W. Q. Lundmark
75 N. Broadway
Des Plaines, Illinois

Western Distributor
Hastings Distributors
1605 Solano Avenue
Berkeley, California

▲ For more details circle **NED-730 H7** on enclosed inquiry slip ▲

THE HOTTEST THING IN CARTRIDGE HEATING-UNIT HISTORY

THE NEW WATLOW FIREROD CARTRIDGE

5 TIMES MORE HEAT than ANY standard cartridge heating unit!

A New high in Watt Densities and temperatures . . . plus l-o-n-g-e-r cartridge life.

For convincing test-proof and other information, write for new FIREROD Bulletin.

WATLOW ELECTRIC MFG. CO., 1374 FERGUSON AVE. SAINT LOUIS 14, MO.

For more details circle NED-733 H7 on enclosed inquiry slip

Make Satisfied Customers with LERMER PLASTIC CONTAINERS

LERMER Containers:

- are shatterproof, assuring long life.
- are 75% lighter than glass, effecting enormous savings in shipping.
- are available clear or opaque in a multitude of lustrous colors.
- can be handsomely decorated and printed during manufacture to carry your story.

Creative Engineering Can Solve Your Packaging Needs!

This "one-at-a-time" dispenser, developed for E. R. Squibb & Sons, is just one sample of Lermer ingenuity at work.

Write for free consultation.

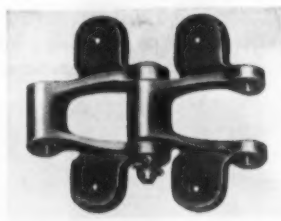
LERMER PLASTICS, INC. 514 South Ave. Garwood, N. J.

REPRESENTATIVES IN THESE CITIES: Rochester, Philadelphia, Memphis, Miami, Cincinnati, Columbus, Cleveland, Chicago, Detroit, Minneapolis, San Francisco, Los Angeles.

PIONEERS AND SPECIALISTS IN PLASTIC CONTAINERS

For more details circle NED-734 H7 on enclosed inquiry slip

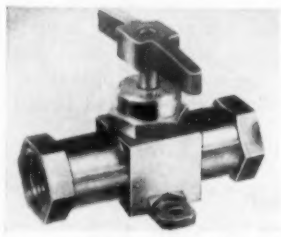
CONVEYOR CHAIN
each link has wing attachment



Made of forged, heat treated steel, this pin type conveyor chain is designed to withstand hard wear and shock. It can be furnished in materials to resist acid or heat conditions. Each easily disassembled link has a wing for attaching wood or metal conveyor slats. Each pin is locked against rotation. Chain can be used in single or multiple strands. Sprockets and conveyor aprons for use with it are available. Made by **Robert A. Main & Sons, Inc.,** 271 Pascack Rd., Paramus, N. J.

For more details circle NED-735 H7 on enclosed inquiry slip

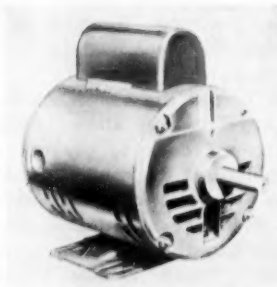
BALL CONTROL VALVE
has zero leakage at 500-3000 psi



This straight - through, ball-type directional control valve can be used with pneumatic, most fuel and hydraulic oil systems, and for most liquid or gaseous propellants. Unit measures only 3½ in. long by less than 1½ in. high. It meets rigid shock and vibration specifications and has zero leakage from 500 to 3000 psi. Maximum operating torque is 20 lb-in. Made by **Eastern Aircraft Products Corp.,** 1310 River St., Orange, N. J.

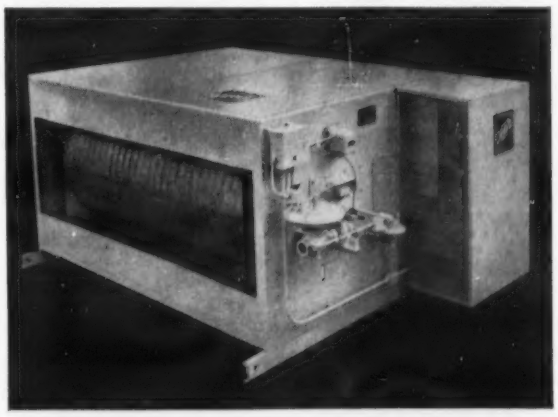
For more details circle NED-736 H7 on enclosed inquiry slip

SMALL RE-RATED MOTORS
are reduced in size and weight



Available in ⅛ to 1-hp ratings in polyphase, capacitor single phase, permanent split capacitor and split phase types, Model R re-rated fractional horsepower motors have size 56 and 48 NEMA frames. Selective use of aluminum and effective application of steel and copper have resulted in savings in weight of as much as 50 per cent in some ratings. Redesigned ventilating system has made it possible to install many ratings in the small 48 frame. Sleeve or sealed ball bearings are available, with relubrication system optional on latter. Rigid welded base or resilient mountings are offered, as are totally enclosed fan cooled and non-ventilated constructions. Made by **Robbins & Myers, Inc.,** Motor Div., 1300 Lagonda Ave., Springfield 99, O.

For more details circle NED-737 H7 on enclosed inquiry slip



DRAVO COUNTERFLO HEATER designed for use as DUCT FURNACE

The all-new Dravo *Counterflo* forced-air heater is designed in two sections to permit use of the furnace section as a separate duct furnace unit.

This section has all of these features: New Airfoil Combustion Chamber • New Dual-fuel Pyrojet Burner • New Induced Draft Firing • Dual Pre-heaters for Burning #5 Oil • Automatic Switchover on Combination Gas/Light Oil Models.

For complete information, write for Bulletin 564. Dravo Representatives are located in principal cities.

DRAVO CORPORATION Pittsburgh 22, Pa.

For more details circle NED-738 H7 on enclosed inquiry slip

STAINLESS!

—from inlet to tip

Now the superlative Mastergauge is available in a wider range of corrosion resistant tubes and sockets than any other pressure gauge.

Check the adjoining list. And remember that tube socket and tip are fused into one piece by the exclusive Marsh "Conoweld" process.

Marsh alone combines the "Conoweld" construction, the copper-clad "Marshalloy" case, the finer Mastergauge movement, the Marsh "Recalibrator", the new "Safecase." Ask for data covering your specific needs.

SIX CHOICES of tubes and sockets

4130 alloy steel tube with alloy steel tip and socket.

403 stainless steel tube with alloy steel tip and socket.

403 stainless steel tube with 416 stainless tip and socket.

316 stainless steel tube with alloy steel tip and socket.

316 stainless steel tube with 303 stainless tip and socket.

"K" Monel tube with alloy steel tip and socket.

MARSH INSTRUMENT CO., Sales affiliate of Jas. P. Marsh Corp. Dept. 28, Skokie, Ill. Marsh Instrument & Valve Co., (Can.) Ltd. • 8407 103rd St., Edmonton, Alberta, Can.

MARSH "THE STANDARD OF ACCURACY"

For more details circle NED-739 H7 on enclosed inquiry slip

SILVER PLATING "ON THE JOB" WITH POWDER

Cool-Amp Silver Plating Powder deposits a genuine coat of silver that will not peel off, and will provide lasting protection against oxidation. It has been used extensively and is accepted as equal to electroplating for bolted and stationary contacts.

Reduces Maintenance
Saves Electricity

Cool-Amp minimizes overheating and provides cool maximum conductivity for your copper, brass or bronze contacts. Used on all current carrying connections, Cool-Amp silver plating assures long life and low maintenance and will prevent series of losses from oxidation that are too small to create noticeable heat but still accumulate into major power loss. Apply to fuse clips and blades to reduce overheating.

Cool-Amp contains no cyanide and is simple to apply. It can be used by any number of people at the same time ON THE JOB in underground vaults, sub-stations and hard-to-get-at places. The only equipment needed is a sharp steel wire brush or abrasive cloth, clean rag and water.

One pound will silver plate approximately 6,000 square inches.

$13.50 PER POUND SHIPPED PREPAID

WRITE FOR FREE SAMPLE AND QUANTITY QUOTATIONS

The COOL-AMP Co.

Dept. ED. 8603 S.W. 17th Avenue, Portland 19, Oregon

For more details circle NED-740 H7 on enclosed inquiry slip

Handle Heavy Materials Easily • Safely • Quickly • with RUGER CRANES

These Ruger Hydraulic Truck-mounted cranes will move anything you can hang on a hook — always a one man crane operation. Capacities from ½ to 2 tons.

SUBSTITUTE FOR AN ELEPHANT®

RUGER CRANES

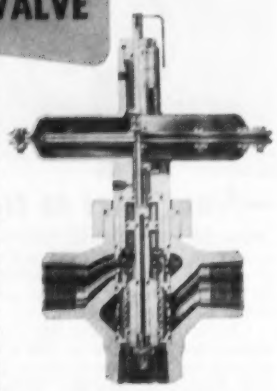
619 West Fourth St. UHRICHSVILLE, OHIO

SEND FOR 1957 CATALOG

Completely illustrated with specifications for each model. Mobile Floor cranes also available. Capacities ½ to 5 tons. Write now for your copy.

For more details circle NED-741 H7 on enclosed inquiry slip

THREE-WAY THREE-POSITION CONTROL VALVE



Here's the solution to many of your flow control problems. Designed especially for service as a manifold valve in automatic systems, the GOT Type "CPC" Valve is extremely simple in design and construction, with all parts accessible for cleaning, repair or replacement without removing the valve body from the line. The inner valve is pressure-balanced for positive operation, and gives guaranteed bubble-tight closure against gas or liquids. The GOT-developed "huddling chamber" design protects valve seat and disk against cutting, and permits re-sizing without seat and disk replacement. For complete information, write for Catalog No. 256 MVC.

Garrett Oil Tools, Inc.
P. O. BOX 2427 • LONGVIEW, TEXAS
DIVISION OF U. S. INDUSTRIES, INC

For more details circle NED-742 H7 on enclosed inquiry slip

MAST-GUIDE BALL BEARING SIMPLIFIES DESIGN and LOWERS MAINTENANCE COST!

New Departure's mast-guide ball bearings eliminate sliding metal-to-metal contact and multiple bearings of complex design . . . as well as need for maintenance by the end user. They are integrally sealed and lubricated for life. The extra wide outer ring with hardened ground "tire" provides more contact surface to reduce mast brinelling.

These bearings give unexcelled long-life performance in handling heavy combined loads. Also, there is no need for relubrication or adjustment through years of service. Write for details.

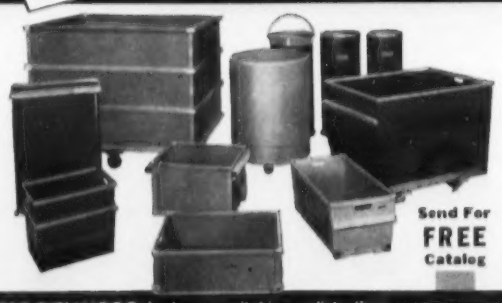
PHOTO: CLARK EQUIPMENT CO.

NEW DEPARTURE
DIVISION OF GENERAL MOTORS • BRISTOL, CONN.

For more details circle NED-743 H7 on enclosed inquiry slip

Check the reasons why

Spaulding MATERIALS HANDLING PRODUCTS can improve your storage and handling systems



Send For FREE Catalog

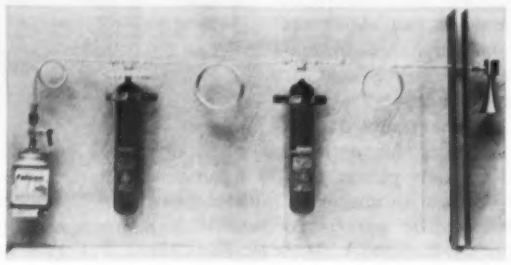
SMOOTHNESS hard wear won't chip or splinter them.
TOUGHNESS to withstand impact and abrasion.
DURABILITY for long lasting resistance to oils, greases, rust and corrosion.
Spaulding Materials Handling
Products are made in all standard types and sizes or custom-made to your particular needs.

SPAULDING FIBRE COMPANY, INC.
DOVER, N. H.
Please send me your free catalog of Spaulding Vulcanized Fibre materials handling products.
NAME
FIRM
ADDRESS
CITY ZONE STATE

For more details circle NED-744 H7 on enclosed inquiry slip

AUTOMATIC FIRE DETECTOR warning horn audible up to ½-mile

UL-approved automatic fire detector can be installed individually or in multiple-unit systems in industrial plants, refineries, warehouses or detached buildings.



In either type of installation warning is given by a diaphragm horn that sounds for 5 minutes and is audible up to ½-mile or more. Power charge of Freon gas contained in the detector cylinder is released to sound the horn when temperatures reach activation point. Temperature ratings of 136 and 174° F are available. Manual equipment for sounding fire drills, testing and other signalling uses can be added without disturbing the automatic operation. Made by **Falcon Alarm Co.**, Dept. NED-56, 243 Broad St., Summit, N. J.

For more details circle NED-745 H7 on enclosed inquiry slip

POWERED DOCK RAMP for docks under 48 in. high, has four hydraulically-operated motions

Especially designed for docks under 48 in. high, the steel Lite-Line powered ramp is simply bolted to dock surface. Hydraulically operated ramp motions including raising or lowering forward edge to accommodate truck beds up to 14 in. higher than the dock and 15-in. horizontal travel. Latter motion allows ramp to be retracted behind edge of dock to prevent damage while trucks are spotted at dock edge. Ramp can also be pulled back to permit closing dock doors.

Standard model is 5 ft wide and 10 ft long and has flared apron at dock end which is hinged to stay flat. Tread surface consists of five flexible steel plates, or fingers which allow ramp to compensate for uneven truck beds. Pressure is supplied by either hand-operated pump or self-contained electric-hydraulic unit that can be plugged into any 110-v circuit. If truck accidently backs into ramp, it will float back on its own hydraulic cushion. Standard models have 6000 and 12,000 lb capacities. Made by **Copperloy Corp.**, Lite-Line Metal Industries Div., 4116 Brookpark Rd., Cleveland 24, O.

For more details circle NED-746 H7 on enclosed inquiry slip

MOUNTING APPARATUS IN CAST BOXES?

. . . consult **HOPE** first for the largest selection of types and sizes in the industry!

Thousands of standard sized electrical boxes by HOPE are used for junctions, terminals, panels, electrical and electronic apparatus mounting—with flanged, unflanged or hinged covers.

GALVANIZED CAST IRON: Weatherproof (NEMA III, IV, and V); Dustight (NEMA IX); J. I. C. (NEMA XII); Explosion Resisting (NEMA VII)

Also available in cast aluminum, brass and bronze

Conduit entrances can be bossed and 5-thread tapped, tapped only, or drilled. Special gaskets, mounting lugs, interior mounting buttons tapped blind—any or all to your specifications.

WRITE FOR COMPLETE CATALOG

HOPE

HOPE ELECTRICAL PRODUCTS CO.
51 Long Avenue, Hillside, N. J. Elizabeth 4-7837

For more details circle NED-747 H7 on enclosed inquiry slip

This One-Piece Skylight CAN'T LEAK!

Self-flashing double-dome Consolite is the ideal skylight. Compare any other against the following Consolite features:

- **leak-proof:** One piece fiberglass units, including flashing, eliminates possibility of leaks.
- **no condensation:** Double-dome construction, with dead air space between, means no condensation drip and high insulation value.
- **simple to install:** Nailed through its flashing, Consolite is simply bonded to the roof with felt stripping and pitch. Skylights available for any roof: built-up, pre-stressed concrete or bonded.
- **maintenance-free:** There's nothing to rust or corrode. Fiberglass material is unaffected by normal industrial fumes. Self-cleaning domes are shatter-proof and crack-proof.
- **natural light diffusion:** Consolite transmits approximately 80% of visible light, but diffuses harsh sun glare and reduces eyestrain.

For complete information, sizes and prices, write:

RESOLITE CORPORATION
Box 527, Zelienople, Pa.

For more details circle NED-748 H7 on enclosed inquiry slip

Keep plant space flexible with BLAW-KNOX Electroforged® Steel Grating

If expanding production set-ups are cramping feeder and storage areas in your plant, it will pay you to check into Blaw-Knox Electroforged Steel Grating.

Storage platforms of Blaw-Knox steel grating put unused space to work easily, economically. There's nothing to wear, nothing to patch. Blaw-Knox Electroforged grating fits neatly around pipes, beams and machinery without any alterations to the building, and, at the same time, admits maximum light and ventilation.

Blaw-Knox Electroforged Grating for walkways, stair treads and floors is fabricated to your specifications to meet your own operating conditions. Complete data on all types is contained in Blaw-Knox Bulletin No. 2527. Write for your copy today.

BLAW-KNOX COMPANY
BLAW-KNOX
Equipment Division
Dept. F, Pittsburgh 38, Pa.

For more details circle NED-749 H7 on enclosed inquiry slip

SAVE $2000 a year
Banish old fashioned hand sweeping

Parker FLOOR SWEEPERS

FACTORIES WAREHOUSES SHOPPING CENTERS

Write today for further information on the complete line of Parker Manual and Power Sweepers

PARKER Sweeper Company, Springfield, Ohio
Dept. NE

For more details circle NED-750 H7 on enclosed inquiry slip

FOR MAKING SERVICE CONNECTIONS QUICKLY, EASILY!

For steel, cast iron and Transite pipe. Single massive bolt. Sizes: 1"-12" inclusive. Write for free catalog today!

M. B. SKINNER CO., SOUTH BEND 21, IND.

For more details circle NED-751 H7 on enclosed inquiry slip

GLOVCO'S service makes worn out gloves safe and good as new at fraction of original cost.

● Yes, before you throw away your old worn out gloves, check GLOVCO'S nationwide service first! GLOVCO is saving industry up to 90% on gloves they once threw away. GLOVCO reclaims worn dirty plastic, leather and fabric gloves, welder's gloves, mitts, hand pads. Also hot mill, terry cloth, asbestos aprons and gloves, sleeves, drop cloths, protective clothing, etc. GLOVCO service is used in thousands of plants from coast-to-coast. Write for details and FREE trial demonstration. Satisfaction guaranteed.

GLOVCO also offers a variety of NEW GLOVES at great savings.

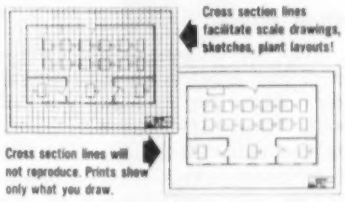
U. S. INDUSTRIAL GLOVE CORP.
9350 Roselawn Ave. Detroit 4, Mich. | 1920 Rose St. Pittsburgh 19, Pa. | 2646 N. Figueroa St. Los Angeles 65, Calif.

For more details circle NED-752 H7 on enclosed inquiry slip

New Processes and Materials

TRACING PAPER & CLOTH
has nonreproducible lines

Nonreproducible lavender cross section guide lines are printed on Grid-X tracing paper and cloth. Guide lines speed hand lettering, ruling, measuring and scaling on original drawings, but prints made from Grid-X originals show only the lines drawn by the draftsman. Two forms are available: transparentized 100 per cent rag tracing paper for pencil and ink; and water repellent tracing cloth which is impervious to perspiration strains. Sheets, pads and rolls in standard widths, lengths and various cross-sections are available in the paper. Grid-X cloth is offered in roll form only. Free 8½ x 11-in. samples are available. Made by **Charles Bruning Co.**, Dept. NE15, 4700 W. Montrose Ave., Chicago 41, Ill.



For more details circle NED-753 H7 on enclosed inquiry slip

PROTECTIVE COATING
prevents corrosion of various metals

Galvanized metal, aluminum and sandblasted steel surfaces are given corrosion protection by treatment with Preprimer metal conditioner. It was developed by Parker Rust Proof Co. to treat metal objects too large for Bonderizing in tanks. Coating forms a tight protective film which protects metal from rust in the interval between sandblasting and application of a regular metal primer. Applied by brush or standard spray equipment, coating dries to the touch in 15 minutes and should be covered with a regular primer within 24 hours. Made by **Tropical Paint Co.**, 1150-1300 W. 70th St., Cleveland 2, O.

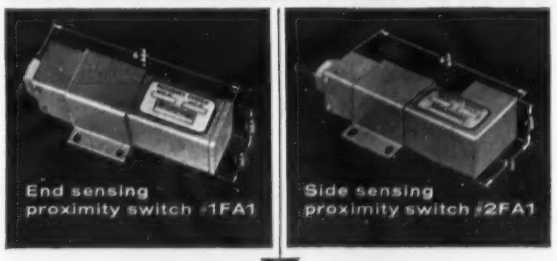
For more details circle NED-754 H7 on enclosed inquiry slip

RECORDING INSTRUMENT FILM
sensitive to heat and pressure

Heated or pressure-loaded styluses render the coating of heat-sensitive film for graphic recording instruments transparent. It is easily duplicated, projected or optically evaluated. The clear, stable 100-gage polyester film base is resistant to tearing. In its coated form it can be printed with a grid by using a high solvent ink which also changes the coating from opaque white to transparent. Marginal notes, typed without a ribbon, can be duplicated or projected with the chart grid. Made by **Technical Paper Co.**, 2432 Linden Ave. E., Linden, N. J.

For more details circle NED-755 H7 on enclosed inquiry slip

MICRO SWITCH ... FIRST IN PRECISION SWITCHING



NEW!

HONEYWELL Proximity Switch!
no moving parts—no tubes—unlimited life—high speed operation—eliminates down time

This new HONEYWELL Proximity Switch is a magnetic switching device of many uses. It is being applied to materials handling control, programming operation of transfer machines and as limit switches on automatic machine tools.

The switch detects ferrous objects without physical contact—will operate up to 600 times a minute. Control relay is operated by passage of a block of ferro-magnetic material parallel to and within ½ in. of its pole face. It is relatively insensitive to ferrous chips.

MICRO SWITCH Field Engineers will show you the many applications for this Proximity Switch.

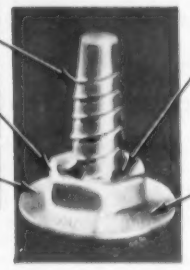
Ask for Data Sheets 119 and 130

MICRO SWITCH
A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY
FREEPORT, ILLINOIS

For more details circle NED-756 H7 on enclosed inquiry slip

New! PALNUT® Self-threading Nuts

Make their own threads—easily, quickly on studs of Nameplates, Medallions, Moldings, etc.



Low-cost, plain studs become strong, vibration-proof threaded assemblies when fastened with PALNUT Self-threading Nuts. Your fastening operation cuts threads while tightening. No special tools needed—high-speed assembly. Made of spring-tempered steel, comprising a thread-cutting lock nut and flat washer in one piece. Parts are pulled up tight, will not loosen. Sizes for 1/4", 5/16" and 1/4" unthreaded studs. Available plain or with bonded-in plastisol sealer. Write for literature and free samples.

THE PALNUT COMPANY
Subsidiary of United-Carr Fastener Corp.
45 Glen Road, Mountainside, N. J.
Canada: P. L. Robertson Mfg. Co., Inc., Milton, Ont.

For more details circle NED-757 H7 on enclosed inquiry slip

A TWO-STAGE REGULATOR for Oxygen or Acetylene

A Dockson safety engineered product. Best quality materials and workmanship throughout. Preset, automatic first stage assures accurate secondary pressure from full to empty tank. Spring-loaded, self-closing safety valve. Forged brass body and bonnet. Filtered inlet. Precision, interchangeable parts. No special tools needed.

Write for complete-line Welding Catalog and name of nearest distributor.

Dockson CORPORATION
3639 WABASH AVENUE
DETROIT 8, MICHIGAN

For more details circle NED-758 H7 on enclosed inquiry slip

Check COLONIAL RUBBER COMPANY for

- EXPERT COMPOUNDING
- ACCURATE PRODUCTION
- QUICK DELIVERY of

Industrial Rubber Parts

If you use molded rubber or silicone rubber parts in your products, you can use Colonial's services to advantage in one or more of the ways listed above. Check us on your requirements, whether for compound development, parts production or both. Our rubber development laboratory, die-making machine shop and large rubber molding plant offer "packaged" service to help you reduce fabricating costs and improve product quality with COLONIAL industrial rubber parts. Write for more details, or send prints for prompt quotation.

1539A

COLONIAL RUBBER CO.
RAVENNA, OHIO

For more details circle NED-759 H7 on enclosed inquiry slip

Most widely-used hand pallet truck in America at NEW LOW PRICES!

MODEL L2P
Capacity 2,000 lbs.

RAYMOND® Lightweight

HYDRAULIC PALLET TRUCK

More RAYMOND Lightweight Hydraulic Hand Pallet Trucks are purchased today than any other and because of this high volume our production costs have lowered . . . and now we are passing the SAVINGS on to YOU!

Why are so many RAYMOND Trucks being purchased? Because this Hand Pallet Truck does so many jobs so well . . . ruggedly built to withstand years of use and abuse. Lightweight to lessen operator fatigue, easy to maneuver and pull. Patented booster rolls provide effortless pallet entry. Convenient foot pedals lift and lower your load. Completely hydraulic for dependable operation. Includes aluminum alloy construction, husky one-piece welded steel frame, safe dual-purpose brake, 270° turning radius.

MAIL COUPON for full details!

The RAYMOND CORPORATION
4199 Madison St., Greene, N.Y.

☐ Send bulletin on Lightweight Hydraulic Pallet Truck.
☐ Please have a RAYMOND representative call.

NAME TITLE
COMPANY
STREET
CITY STATE

For more details circle NED-760 H7 on enclosed inquiry slip

New Literature and Catalogs

Miniature Lighting Assemblies

Drake Mfg. Co.—16-page catalog of miniature lighting assemblies, lamp holders and components gives application data and dimensions on wide range of items. Dial and indicator lighting units are described.

For more details circle NED-761 H7 on enclosed inquiry slip

Fluid Filters

Wm. W. Nugent & Co.—Complete design, performance and application information on line of laminated disk filters for fuel and lubricating oil as well as a wide range of fluids and gases is presented in 16-page illustrated bulletin 7C. Filtering units with motor driven pumps are also detailed.

For more details circle NED-762 H7 on enclosed inquiry slip

Electroplating & Metal Finishing

Frederick Gumm Chemical Co.—48-page illustrated catalog No. 10 describes more than 80 Clepo products for cleaning, stripping, deburring, etching and other finishing operations in the metalworking field. Several sections are devoted to processing methods, tank calculations and safety measures.

For more details circle NED-763 H7 on enclosed inquiry slip

Planning A Gage Laboratory

Sheffield Corp.—20-page booklet "Gage Laboratory Instruments and Services" is a specification and planning guide on the layout and equipment to be used in industrial plant gage departments to meet the requirements for precision and convenient control of parts measurement standards. Functions of the plant gage laboratory are outlined, and instruments for use in department are described.

For more details circle NED-764 H7 on enclosed inquiry slip

Tungsten Arc Welding Process

Air Reduction Sales Co.—Catalog 2300 contains 20 pages of information on the Heliweld tungsten arc welding process which uses inert helium and/or argon to shield the weld. Method is suited for joining such hard-to-weld light gage metals as nickel, stainless steel, aluminum, titanium, columbium, tantalum, beryllium alloys, Inconel and Everdur. Manual and automatic equipment is covered.

For more details circle NED-765 H7 on enclosed inquiry slip

Industrial Ladders

Duo-Safety Ladder Corp.—Duo-Safety industrial ladders described in 32-page brochure 5758 include wood and aluminum constructions in light and heavy industrial types, marine, mining, telephone and utility, sectional, folding, step and safety step ladders. Scaffolds and ladder accessories are also covered. Three pages of ladder facts on construction, maintenance and safe use are a highlight.

For more details circle NED-766 H7 on enclosed inquiry slip

Specify SQUARE D Motor Starters for 3 Important Reasons

Easy to Wire!
Easy to Get At!
Easy to Live With!

Write for Bulletin 8536. It tells the complete story.
Address Square D Company, 4041 N. Richards St., Milwaukee 12, Wis.

NOW...EC&M PRODUCTS ARE A PART OF THE SQUARE D LINE

SQUARE D COMPANY

For more details circle NED-767 H7 on enclosed inquiry slip

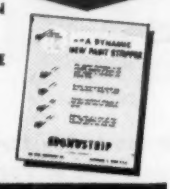
DON'T LET YOUR **STRIPPING PROBLEMS** GET YOU DOWN!

EPOXYSTRIP

Is a LIFE SAVER—TIME SAVER—MONEY SAVER

A new more powerful paint stripper that outstrips all others! No organic finishes have yet resisted this amazing paint stripper. It was especially formulated to remove epoxies . . . with the same ease that it removes baked enamels, lacquers, etc. No stripping scum—clean rinsing!

SEND FOR FREE BROCHURE



- EPOXYSTRIP WILL NOT HARM SOFT METALS
- ECONOMICAL—MORE JOBS PER GALLON AT LOWER COST
- NO SCRUBBING OR MANUAL ASSISTANCE
- RECOMMENDED BY LEADING FINISH MANUFACTURERS

JOBBERS: Beck EPOXYSTRIP sells on demonstration. Try it and see for yourself.

BECK EQUIPMENT COMPANY
3352 WEST 137th STREET CLEVELAND 11, OHIO

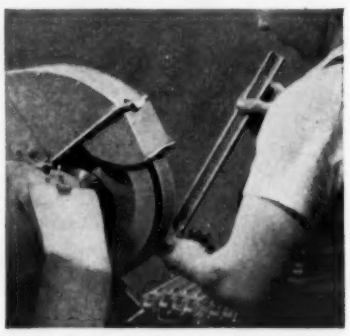
For more details circle NED-768 H7 on enclosed inquiry slip

For reducing finishing costs . . .

try JEWEL BRAND ABRASIVE BELTS

THE UNIFORMLY-HIGH QUALITY of JEWEL BRAND Abrasive Belts saves time, reduces operator fatigue and results in lower finishing costs. It is obtained through a simple system of continuous quality control made effective by the attitude and skill of veteran workers. All JEWEL BRAND belts feature the unique velvet joint . . . longer lasting according to performance records.

JEWEL BRAND belts are available in the precise size and grit to meet every grinding, finishing or polishing need. For details, write ABRASIVE PRODUCTS, INC., 525 Pearl St., South Braintree 85, Mass.



JEWEL BRAND coated ABRASIVES

For more details circle NED-769 H7 on enclosed inquiry slip

ARCOS WELDING FACTS

Extra Benefits For Aluminum Welders Using Inert Gas Arc—Semi or Fully Automatic

Specify Arcos Aluminum Spooled Wire and be sure of these vital features: A chemical analysis and cleanliness within exacting standards. Smooth, easy feeding off level-layer-wound reels. Wide selection of grades for accurate matching of job requirements. Pre-tested to assure top performance, sound uniform weld metal.

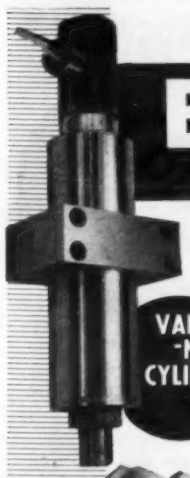
FREE ALUMINUM DATA BULLETIN

Yours for the asking—an application chart filled with helpful information on Arcos Aluminum Rods and Electrodes.

Arcos Corporation, 1500 S. 50th St., Philadelphia 43, Pa.

ARCOS | Filler Metal Specialists

For more details circle NED-770 H7 on enclosed inquiry slip



THESE NEW

BECKETT SHOP AIDS

SAVE TIME, MONEY!

VALVE -N- CYLINDER

Complete Fixture Clamp Power Package

Combination of a fast-acting 3-way electric air valve mounted directly on a single action cylinder with non-rotating piston rod, provides a simple complete fixture clamp power unit. Easily installed. 1", 1½" and 2" bores; 1", 2", 3" and 4" strokes.

AIR-PAL

Air-Operated Collet Fixture

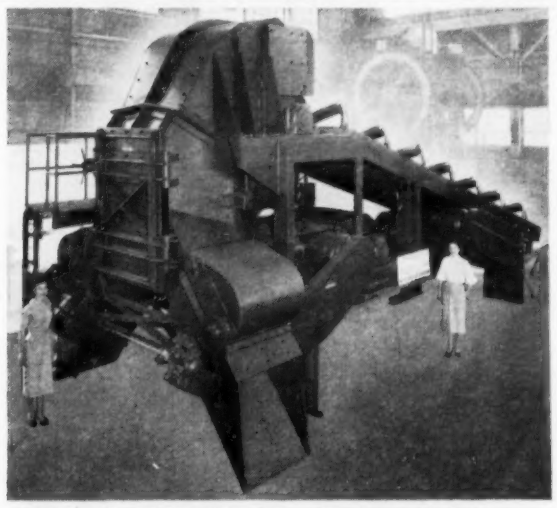
Simplifies secondary work on parts that can be chucked in a standard 5-C collet. Positive two-way power. 750-lb. pull at 100 lb. line pressure. 3½" high, 4" wide, 6½" long.

Write for bulletins for complete data.

THE BECKETT-HARCUM COMPANY

1147 WAYNE ROAD, WILMINGTON, OHIO

▲ For more details circle NED-771 H7 on enclosed inquiry slip ▲



WORLD'S LARGEST—This Continental hydraulically propelled belt conveyor tripper handles 5400 tons of iron ore per hour, and is the largest ever manufactured!

No matter what the size or peculiar requirements of your materials handling problem, it will pay you to consult Continental FIRST.

INDUSTRIAL DIVISION
CONTINENTAL GIN COMPANY
BIRMINGHAM, ALABAMA

CGC ATLANTA CLEVELAND DALLAS KNOXVILLE MEMPHIS MOBILE NEW YORK 17

▲ For more details circle NED-772 H7 on enclosed inquiry slip ▲

Get new savings in time—money—manpower

ELECTROLIFT

WORM DRIVE HOISTS

Put this three-way saving to work in your own operations with ElectroLift Worm Drive Hoists. Designed in capacities up to ten tons, ElectroLift moves materials faster, more economically with less effort. Its efficient, long service saves its initial cost many times over.

Here's what make the fully-enclosed ElectroLift hoists outstanding: automatic electric brake, steel suspension, worm drive braking, grooved drum, alloy-steel worm shaft, automatic lubrication, optional controls, and many special features.

For complete details, consult your ElectroLift representative listed in the telephone directory.

WORM DRIVE ELECTROLIFT HOISTS

3793

ELECTROLIFT, INC., 204 Sargeant Ave., Clifton, N. J.

▲ For more details circle NED-773 H7 on enclosed inquiry slip ▲

New Processes & Materials

STRONG PHENOLIC TUBING
designed for press-fit assemblies

Line of Phenolite Grade XX-3113 small diameter, paper-base phenolic tubing is designed for use in press-fitted mechanical and electrical assemblies. Sizes range from 0.093 to 0.379-in. ID, in wall thicknesses from 0.01 to 5/64-in., depending upon pipe size, and in lengths up to 25 in. Natural in color, tubing meets NEMA Specifications for Grade XX rolled tubing. Made by **National Vulcanized Fibre Co.,** Dept. NED, 1057 Beech St., Wilmington 99, Del.

▲ For more details circle NED-774 H7 on enclosed inquiry slip ▲

BATTERY ADDITIVE
increases service between recharges

Lead-acid storage batteries of type used in electric trucks, locomotives and other equipment are strengthened while in use by Lifetime-Charge, a chemical compound. It increases the length of battery service between recharges by constantly converting lead sulphate deposits on battery plates into active electrolyte. Battery life is also extended. Made by **Magnaflo Co.,** 1501 Central Tower Bldg., Youngstown 3, O.

▲ For more details circle NED-775 H7 on enclosed inquiry slip ▲

STOCK METAL SIGNS
for industrial plant warning use

Such directions as "Danger — Look Out for Cars," "Caution — Slippery When Wet," "Safety First —Keep Aisles Clear" and "Notice — No Trespassing Under Penalty of Law" are clearly imprinted in two and three colors of enamel on heavy-gage 14 x 10-in. metal for use as industrial plant safety signs. Over 300 stock titles cover practically every plant or safety sign need. Traffic signs, lettered in vivid yellow and black, carry such instructions as "No Left Turn," "RR Crossing" and "No Parking," and measure 14 x 7 in. Directional signs, measuring 14 x 7 in. and carrying bold arrow pointing left or right, have such wording as "Fire Exit," "Elevator," "First Aid Room" and "Air Raid Shelter." Dav-Son metal warning signs are available from stock from **A. C. Davenport & Son, Inc.,** Dept. NED, 311 N. Desplaines St., Chicago 6, Ill.

▲ For more details circle NED-776 H7 on enclosed inquiry slip ▲

High Heat Resistance! Longer Wear!

AO Heat Gloves and Mittens

These heat gloves and mittens have wearing qualities not found in asbestos, and are considerably lower priced. They're specially tanned cowhide, have full heavy liners and can be had with heavy duck cuffs instead of leather for additional savings. Recommended for die casting, block bending in shipyards, drop forging, steel mill coil tying and similar. Shown is AO SC5X166, a glove specially tanned to resist heat. Clute cut. Reinforcing leather strap at thumb crotch. 4" leather cuff, lined.

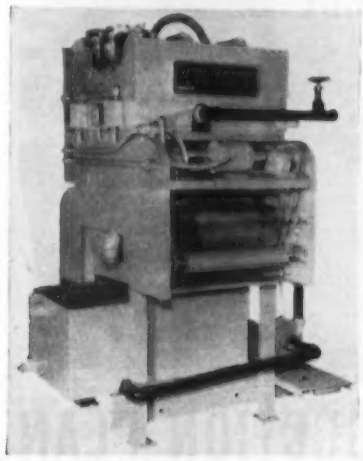
American Optical COMPANY SAFETY PRODUCTS DIVISION

Always insist on AO Trademarked Safety Products. Your nearest American Optical Safety Products Representative can supply you.

SOUTHBRIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES

▲ For more details circle NED-777 H7 on enclosed inquiry slip ▲

HYDROMATION FILTER



REMOVES DIRT & SLUDGE AUTOMATICALLY AT LOW COST

This filter is well suited to all types of industrial filtration. On a completely automatic cycle it will take dirt and sludge out of liquids, remove the sediment, replace the filtering media, and resume filtration. Liquids can be filtered from 10 gpm to 3000 gpm with a degree of filtration as fine as .0002.

The HYDROMATION FILTER operating under pressure and using filter media in roll form offers low operational cost.

HYDROMATION ENGINEERING CO.

19665 Schoolcraft Detroit 23, Michigan

▲ For more details circle NED-778 H7 on enclosed inquiry slip ▲

FLEXIDYNE

THE DRY FLUID DRIVE

NEW! REVOLUTIONARY!

Handles difficult starting problems and gives a *new* kind of protection against shock and overloads. The dry flow-charge can be varied to give exact torque you need. When load reaches normal speed there is zero slip, giving 100% efficiency. Write for bulletin with detailed information on Flexidyne Drives and Flexidyne Couplings.

DODGE MANUFACTURING CORPORATION, 2100 Union St., Mishawaka, Ind.

DODGE of Mishawaka, Ind.

▲ For more details circle NED-779 H7 on enclosed inquiry slip ▲

HOLES COST LESS with ARO DRILLS

AUTOMATIC DRILLING at LOWEST COST . . . because it's ALL AIR operated!

SINGLE OR MULTIPLE SET-UPS . . . widest range of applications.

CHOICE OF 4 precision-made drills: Automatic, Par-Automatic, Bant-A-matic, Mafg-A-matic.

WRITE for complete literature. See your Aro distributor.

THE ARO EQUIPMENT CORPORATION
GENERAL OFFICES—BRYAN, OHIO
Plants at Bryan and Cleveland, Ohio
Aro of California, 2141 S. Grand Ave., Los Angeles 7, Calif.
Aro Equipment of Canada, Ltd., Toronto 13, Ontario • Offices in All Principal Cities

ARO AIR TOOLS

▲ For more details circle NED-780 H7 on enclosed inquiry slip ▲

you can cut your GLOVE COSTS

with the authorized

JOMAC COST-REDUCTION PLAN

1 Jomac will analyze your working conditions and glove requirements
2 You will receive a complete report and specific Jomac Glove recommendations
3 Test and compare the Jomacs with your present gloves—and the net cost figures speak for themselves

Your glove costs *can* be reduced. To make *profitable* use of this plan, write to Jomac Inc., Dept. G, Philadelphia 38, Pa., and say "Reduce my glove costs."

JOMAC INDUSTRIAL GLOVES

Plants in Philadelphia, Pa., and Warsaw, Ind.
In Canada: Safety Supply Company, Toronto

For more details circle NED-781 H7 on enclosed inquiry slip

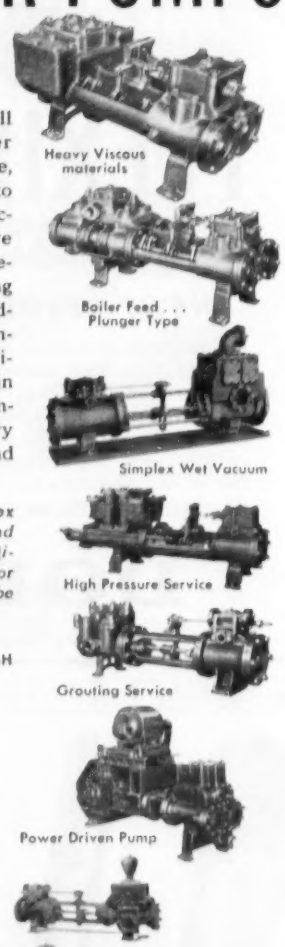
WAGENER PUMPS

FIT JOB REQUIREMENTS

Wagener pumps meet all requirements for power source, capacity, pressure, viscosity and resistance to abrasive and corrosive actions on each job. They are sturdily built for trouble-free pumping. Self-sealing pumcup packing and divided piston rods reduce maintenance costs to the minimum. They are available in price ranges suitable to anticipated usage. Delivery and service are prompt. Send for details . . . today.

Wagener simplex and duplex pumps in both piston and plunger types can be engineered to job specifications for pumping anything that can be pumped:

ACIDS, ALCOHOLS, ASPHALT, BEER MASH, BRINE, BUTANE, CREOSOTE, DYES, GLUE, GROUT, LARD, LIQUOR, MILK, MOLASSES, OILS, PAINT, POTATO MASH, PROTANE, ROSIN, SEWAGE, SOAP, SYRUPS, TAR, TURPENTINE, VACUUM SERVICE, VOLATILE LIQUIDS, WATER, WOOD PULP



WAGENER PUMPS

WAGENER PUMP DIVISION
CANTON STOKER CORPORATION
102 Andrew Place, S. W.
Canton 1, Ohio

CANTON STOKERS

N-466-C8

For more details circle NED-782 H7 on enclosed inquiry slip

New Literature & Catalogs

Industrial Control Motor

Minneapolis-Honeywell Regulator Co.—"Action" is title of illustrated broadside which describes the new Actionator industrial motor for the operation of rotary, slipstem and butterfly valves; dampers and other final elements in automatic control systems. Two-position and floating control motors are available.

For more details circle NED-783 H7 on enclosed inquiry slip

Stainless & Alloy Pipe & Tube

Trent Tube Co.—48-page catalog is comprehensive reference manual for engineers, purchasing agents and users of stainless steel and high alloy pipe and tubing in sizes ranging from 1/8 to 40-in. OD. Properties, fabrication and other technical data are covered. Separate section deals with titanium tubing.

For more details circle NED-784 H7 on enclosed inquiry slip

Air & Hydraulic Control Valves

C. B. Hunt & Son, Inc.—Bulletin No. 571 is a 12-page illustrated treatise on Quick-As-Wink air and hydraulic control valves. Wide range of operating mechanisms including lever, cam, solenoid, pilot and push button types are detailed. Hydraulic valves are suitable for control service at pressures to 5000 psi.

For more details circle NED-785 H7 on enclosed inquiry slip

Instrumentation & Control

Hays Corp.—Pressure, flow, temperature, level, gas analysis and sampling are typical control functions rendered by equipment detailed in 12-page bulletin 57-687-297 entitled "Instrumentation and Control." Receivers, recorders and controllers are described.

For more details circle NED-786 H7 on enclosed inquiry slip

Photoelectric Controls

Autotron, Inc. — Plug-in photoelectric controls, miniature phototube and light source heads, Lucite rod sensing heads, one-package photoelectric controls, impact actuated units, current surge controls, and combined photoelectric and timing controls are featured in illustrated catalog 57 supplement.

For more details circle NED-787 H7 on enclosed inquiry slip

Paint Spray Booths

DeVilbiss Co.—Spray booths of every type, size and application are subject of illustrated 36-page catalog I-7000. Water wash, paint arrestor and dry baffle booths are detailed and application guidance is offered. Included are data on exhaust systems.

For more details circle NED-788 H7 on enclosed inquiry slip

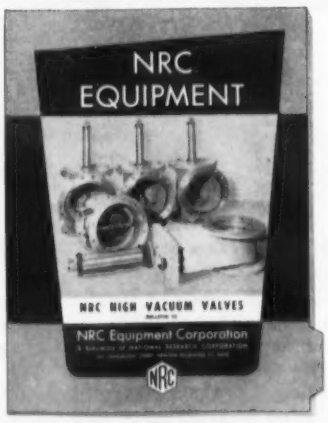
Relays

Magnecraft Electric Co.—Printed circuit, miniature and subminiature, power, snap-action, 400-cycle, rectified and other types of relays are detailed in 16-page engineering catalog 157. Enclosure data for various environmental conditions are discussed.

For more details circle NED-789 H7 on enclosed inquiry slip

New Vacuum Valve Manual Free

Write for Your Copy!



Gives engineering information on types and uses of high vacuum valves. Contains valuable design data on more than 250 valves. Sizes 1/8" to 20" manual and remote operation. Lists wye, globe, angle, slide, ball, air release, throttling and quick connect valves. Write for bulletin No. V2 today!

Department 29-H
NRC Equipment Corporation
A subsidiary of National Research Corp.
160 Charlemont Street, Newton 61, Mass.

For more details circle NED-790 H7 on enclosed inquiry slip

APEX surface drive SOCKETS designed for high-volume nut running

The large opening at each corner of the hex is the reason why an Apex surface drive socket gets right on the nut, bolt or cap screw. The hex broached opening of the socket matches up perfectly with the hex head of the fastener almost instantly upon contact.

That's why Apex surface drive sockets will help you increase productive output on any high-volume nut running job. You'll keep costs down too, because the socket drives against the center of the hex flats of the fastener, preventing damage.

Write for the Apex Pocket Catalog of Fastening Tools

Ask APEX *for the answer to your fastening problem!*

THE APEX MACHINE & TOOL COMPANY
1046 S. Patterson Blvd. • Dayton 2, Ohio

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Are You Buying RUBBER *at the RIGHT price?*

Our Custom Molded Rubber Plant can supply you promptly with a wide choice of slab, pure and C. I. sheet, press die pads, cylinder-spring and specification rubber that's priced right. You buy from a price list that you can immediately understand. No tricky discounts! No gimmicks! Plus that . . . each of your orders is important to us and we are *flexible* enough to do a favor for a customer when you need it.

WRITE US for our big E-Z to read price list. Contains other items, too! RUBBER JOBBERS INVITED.

BUFFALO WEAVING & BELTING COMPANY
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BUFFALO 7, N. Y.

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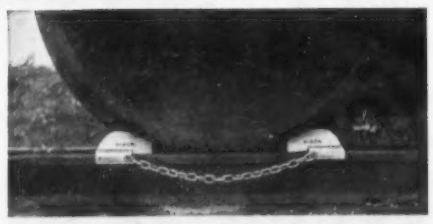
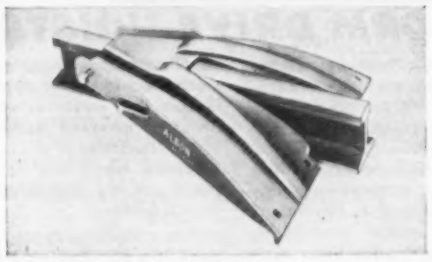
WHEEL CHOCKS in four styles protect employees and equipment from runaway cars. Positive safety against effects of wind, gravity and ground vibration.



"World's largest variety of Rail Benders and Car Replacers"



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Universal type in sizes for all rails and heaviest equipment
Rail lock prevents motion in any direction

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Cut Cost . . .
Speed Up Hammer and Tool Operations with the

BIG BULLY AIR HAMMER

This 6 inch, 50 ounce Big Bully has Superior's exclusive metering trigger which delivers 0 to 9000 blows per minute.

14 Tools Available for 100 Different Jobs

Each tool designed specifically for use with the Big Bully. Blanks available for use in making tools of your own design.

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- Peening Tool
- Finishing & Forming Tool
- Star Drills
- Oil Grooving Chisel
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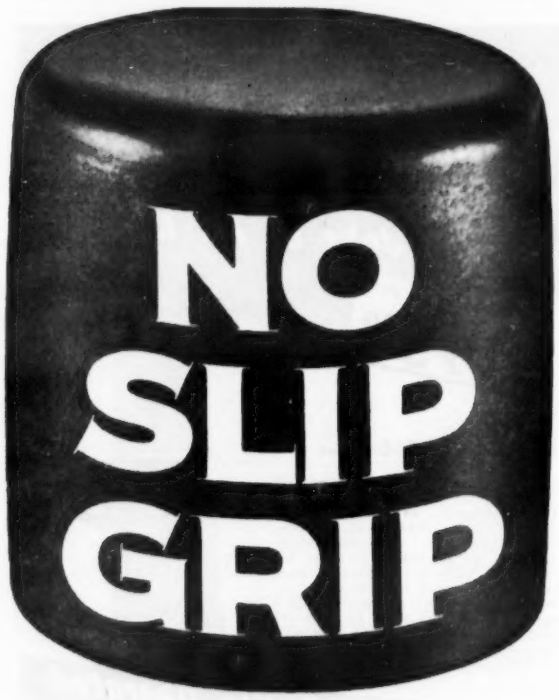
- Panel Cutter
- Spoon Face Chisel
- Gouge
- Wood Chisel
- Wedge Driver
- Paint Scraper

Write Dept. N-8

SUPERIOR PNEUMATIC & MANUFACTURING, INC.
4758 Warner Rd.
Cleveland 25, Ohio

▲ For more details circle NED-794 H7 on enclosed inquiry slip ▲



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PLASTIC PLUGS AND CAPS

No greasy, waxy feel to S.S. WHITE Plastic Plugs and Caps! A no-slip grip every time makes these low-cost protective plugs and caps easy as 1-2-3 to install and remove!

S.S. WHITE Plastic Plugs and Caps help guarantee factory-perfect delivery of your product. Threaded openings and connections get rugged protection against damaged threads, dirt, moisture, or leakage due to rough handling. These plugs and caps are "misapplication-proof" . . . non-shredding . . . won't jar loose or pop out . . . are safe for personnel to handle.

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PLASTICS DIVISION
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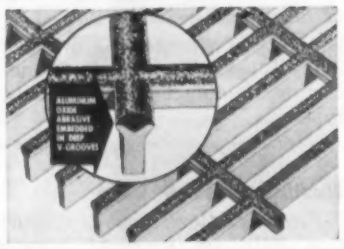
Western Office: 1839 West Pico Blvd., Los Angeles 6, Calif.

▲ For more details circle NED-795 H7 on enclosed inquiry slip ▲

New Processes & Materials

GRATING & STAIR TREADS feature embedded abrasive



Slipping accidents can be prevented by use of Relgrit steel grating and stair treads which have aluminum oxide abrasive particles embedded in V-grooves in the tops of the bearing and cross bars. It is easy to install, requires no maintenance and the abrasive surface is impervious to oil, grease, acids, alkalies and other common industrial chemicals. Made by **Reliance Steel Products Co.**, Box 510-M, McKeesport, Pa.

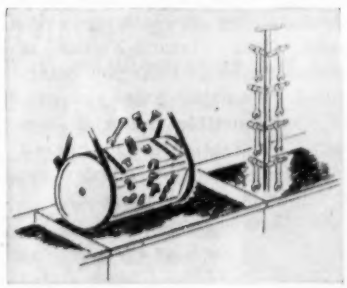
▲ For more details circle NED-796 H7 on enclosed inquiry slip ▲

INSTANT-SETTING ADHESIVE for fabrics, porous materials

Rubber base Ray-BOND adhesive R-87001 has instant grab, enabling its use in textile and garment mills for joining the ends of ribbons, elastic bands and other fabrics without slowing production. Adhesive joins ends of the material without overlapping and has tensile strength (canvas to canvas) of 104 psi after 10 minutes and 112 psi after 24 hours. It resists water and diluted alkalies but should not be used where heat or solvents are present. Application is by extrusion or brush. Developed by **Raybestos-Manhattan, Inc.**, Adhesives Dept., Dept. 177 Bridgeport 2, Conn.

▲ For more details circle NED-797 H7 on enclosed inquiry slip ▲

CADMIUM BRIGHTENER for barrel and still plating



High luster is given to the entire surface of all cadmium plated parts by Cad-Kote, a cadmium brightener. It is used in the plating of ferrous and non-ferrous metals in both barrel and still plating. Performing best in a new plating bath, the brightener can be used in conversion of existing bright cadmium baths. Cad-Kote plated parts are easily soldered, offer maximum corrison protection and prevent galvanic couples in assemblies. Application can be to fasteners, tools and parts. Made by **Smoothex, Inc.**, 10703 Briggs Rd., Cleveland 11, O.

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HOW TO INCREASE PAINT SPRAY BOOTH EFFICIENCY—AND LOWER COSTS!

Photo Courtesy Globe Hoist Co., Philadelphia, Pa.

RP PAINT ARRESTORS REDUCE MAINTENANCE, FLOOR-SPACE REQUIREMENTS, AND DOWNTIME

Efficiency and economy were combined to improve the paint spray operation in this booth illustrated. RP Paint Arrestor Pads trap overspray, are easily, inexpensively replaceable and adaptable to almost every type operation. If you spray paint—check the RP Paint Arrestor way to saving and efficiency.

WRITE FOR FREE BOOKLET
Helpful, informative suggestions to solve your paint spray booth problems. Write today.

RESEARCH PRODUCTS CORPORATION
DEPT. 32, MADISON 10, WIS.

RP . . . PRODUCTS OF RESEARCH

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THE *Sutton* MOTOR DRIVEN PRESSURE BLOWER

THE WORLD'S *Most Dependable* PRESSURE BLOWER

THREE SIZES ¼, ½, 1 H.P.

USED FOR EXHAUSTING DUST, SMOKE, FUMES, VAPOR . . COOLING AND DRYING . . CONVEYING COTTON, WOOL, SHAVINGS . . FORGE BLASTING

MADE OF LIGHTWEIGHT CAST ALUMINUM ALLOY to reduce weight and increase strength. CENTRIFUGAL TYPE. Delivers even, non-pulsating flow of air. Universal as to rotation and discharge. Direction of discharge may be changed to any of eight 45 degree positions. Straight wall construction reduces windage and increases efficiency. Standard 3450 r.p.m. direct-connected 60-cycle ball bearing motor, open or totally enclosed types. Capacities, 100 to 800 cu. ft. per min. at static pressures from ½" to 6".

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SPECIFY CUNO *Super* AUTO-KLEAN Filters when your designs demand—

- MICRONIC FILTRATION . . . down to 40 microns.
- POSITIVE, SELF-CLEANING ACTION . . . while operating.
- SMALL SIZE plus HIGH FLOW RATES . . . 12" unit illustrated handles over 50 gpm. Pressure drop is less than 3 psi.
- ALL-METAL CONSTRUCTION . . . carbon or stainless steel, two-stage filtration, lowest cost-per-gallon.

WRITE NOW FOR FREE DESIGN DATA

A COMPLETE DESIGN-ENGINEERING SERVICE . . . to help you solve all your filtration problems is available through the Cuno Field Engineer conveniently located in your area.

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1708 SOUTH VINE STREET, MERIDEN, CONN.
ONLY CUNO offers you ALL 5 TYPES of Filter Media:
EDGE-TYPE, WIRE-WOUND, SCREEN
FIBER CARTRIDGE and
POROUS METAL

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READ LOW TORQUE DIRECTLY

on large watch-face
TORQUE WATCH

Features
Easy-reading dial .....300° linear scale.
Compact .....1⅝" dia., 3-7/16" long.
Accurate ±5% std., ± 1% special order.
Light weight ..... only seven ounces.
Unbreakable crystal and face.
Chucks .....¼" or ½" capacity.

Six Models:
6000B-1 ..... .01 to 1.2 oz. in. CW.
6000B-2 ..... 1.0 to 20 oz. in. CW.
6000B-3 ..... .01 to 1.2 oz. in. CCW.
6000B-4 ..... 1.0 to 20 oz. in. CCW.
6500C-1 ..... .05 to 1.2 oz. in. Two-way.
6500C-2 ..... 1.0 to 20 oz. in. Two-way.

Additional ranges available on special order. Write today for data sheet describing all Torque-Watch gauges.

Waters MANUFACTURING, inc.
APPLICATION ENGINEERING OFFICES IN PRINCIPAL CITIES
Wayland, Massachusetts
P. O. Box 368, So. Sudbury, Mass.
MFG. INC.

For more details circle NED-803 H7 on enclosed inquiry slip

ALL-NEW!
50TH ANNIVERSARY
"DETROITER" ELECTRIC HOIST

STREAMLINED ... everything built-in, enclosed, protected; no HUNG-ON parts; modern in every detail.

HOOK STOPS ... automatic up-stop, automatic down-stop; one of the several safety features included on the Detroiter.

SUSPENSION ... various types available, including power travel.

PUSH BUTTON CONTROL ... low voltage, pilot circuit.

The Detroiter can also be furnished for AIR MOTOR operation in place of electric motor.

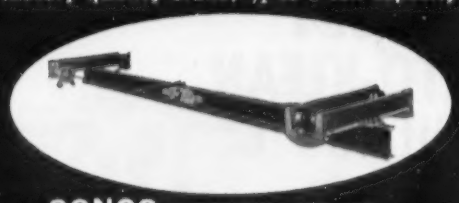
A BALANCED DESIGN— RUGGED, SMOOTH, QUIET, ACCESSIBLE

Inquire about the "Detroiter"—all new Electric Hoist; get further information, phone or write today. Ask for Bulletin 850

DETROIT HOIST and MACHINE CO.
8231 MORROW STREET • DETROIT 11, MICHIGAN

For more details circle NED-804 H7 on enclosed inquiry slip

BUILD IT YOURSELF
Save time, shipping and labor. Build this factory quality crane, ½ to 5 ton capacity



CONCO UNDERHUNG AND TOP RUNNING HAND GEARED CRANE ASSEMBLIES

BUILD IT YOURSELF:
Packages include instructions, complete parts except locally available I-beam and cross shaft. Equip with Conco chain or electric hoist. Write for Bulletins 2200 and 2300 and name of local distributor.

CRANES HOISTS CONCO

CONCO UNDERHUNG CRANE ASSEMBLY

CONCO ENGINEERING WORKS
Division of
H. D. Conkey & Company
57 Grove St., Mendota, Ill.

AFFILIATES:
Conco Engineering Works - Domestic Heating Equipment
Conco Building Products, Inc. - Brick, Tile, Stone

For more details circle NED-805 H7 on enclosed inquiry slip

New Literature & Catalogs

Electronic Equipment Cabinets

Mid-West Conveyor Co., Metal Products Div.—Cabinets suited for mounting and housing a wide range of electronic gear are described and illustrated with photos and dimensional drawings in 30-page catalog 257. Included are basic frame and transmitter, receiving, equipment and apparatus cabinets of various types.

For more details circle NED-806 H7 on enclosed inquiry slip

Flexible Hose & Duct

Flexaust Co.—Prices, specifications and application data on Flexaust hose and Portovent duct for moving, air, dust, fumes and materials via pressure, suction and gravity are found in 8-page illustrated bulletin 70. Cuffs, flanges, and couplings for both products are also shown.

For more details circle NED-807 H7 on enclosed inquiry slip

Controlled Volume Pumps

Milton Roy Co.—Specifications and design features of line of motor driven controlled volume pumps are among contents of 32-page bulletin 553-1. They meter and pump corrosive liquids against pressure and are accurate to ±1 per cent. Applications of standard and modified models are shown.

For more details circle NED-808 H7 on enclosed inquiry slip

Line of Powered Industrial Trucks

Clark Equipment Co., Industrial Truck Div.—Described and illustrated in 16-page condensed catalog is complete line of fork lift trucks, straddle carriers, powered hand trucks and towing tractors. Specifications are given for each model. Twenty-four attachments for fork trucks are covered.

For more details circle NED-809 H7 on enclosed inquiry slip

Explosion Hazard Finder

Crouse Hinds Co.—8-page illustrated folder is a guide to location of probabilities of electrically ignited explosions in plants. This "Hazard Finder" is a check list of 13 questions that can help you determine whether uncontrolled flammable gases, vapors, dusts, liquids and other combustible materials are making your plant unsafe. Evaluation of the hazard potential of your plant is revealed by answers to questions when seal of folder is broken open.

For more details circle NED-810 H7 on enclosed inquiry slip

Semipressure Fans

Aerovent Fan Co.—Ratings and performance data on type SP-7 semipressure fans in 14 to 60-in. diameters are tabulated in 8-page bulletin 400. These fans operate at static pressures normally considered above the range of propeller type fans. They are available in direct driven duct, direct connected, belt driven duct, Bi-Flo duct and extended shaft types with free air deliveries up to 67,500 cfm.

For more details circle NED-811 H7 on enclosed inquiry slip

This Small Flow Valve Just Won't Quit!

Proven under pressure in 2 years of rugged field tests, new Leslie SMALL FLOW Reducing Valve fills the bill where small flows of steam, air, gas or liquid are a problem. Famous Leslie quality and design means you set it and forget it.

Easy to size for top performance
Send for really complete data in Bulletin 511-A.

TRADE LESLIE MARK
THE FIRST NAME IN PRESSURE, TEMPERATURE AND LEVEL CONTROLS
Since 1900

2630

LESLIE CO., 227 Grant Ave., Lyndhurst, N. J.

For more details circle NED-812 H7 on enclosed inquiry slip

LOW COST

CARTER CLAMP-TYPE CYLINDERS WITH UNIVERSAL MOUNT

FIRST-LINE QUALITY
ALL STEEL
HEAVY DUTY SERVICE
AIR OR HYDRAULIC

IMMEDIATE DELIVERY

Here is a small, compact, yet rugged clamp-type cylinder. Set up automatic operations in any design or plant application. All the plus values of Carter design and construction . . . at the greatest economy possible in quality industrial type cylinders. Solenoid operation optional. *Immediate delivery!* Order today!

SEND FOR COMPLETE LITERATURE
Full details with dimensions, specifications and service recommendations.

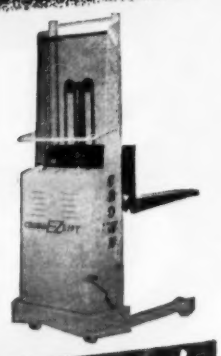
Carter Controls, inc.
2876 BERNICE ROAD • LANSING, ILLINOIS (Chicago Suburb)
Phones: Lansing, GRanite 4-3305 • Chicago, BAyport 1-7186

For more details circle NED-813 H7 on enclosed inquiry slip

CROWN E-Z LIFTS
Speed Loading . . . Unloading
Die Handling . . . Stacking . . .
Lifting Jobs of All Kinds

PRICED FROM JUST $195.00

MODEL BL 1250-56—



1250-lb. capacity*, battery operated hydraulic lift with dependable 12-volt electrical system including built-in battery charger. Highly maneuverable with extremely short turning radius—easily handled by one man. Automatic overload protection . . . dual foot brakes . . . maximum lift 56" above floor. Remote control available as optional feature. Price, including battery, $580.00, F.O.B. New Bremen, Ohio.

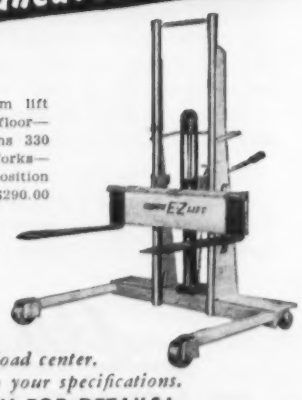
Low Cost . . . Easily Operated

MODEL LT-1000—

1,000-lb. capacity*. Extra strong tubular steel construction, safety plate platform, foot-operated brake. Maximum lift 54" above floor—lowers to 5¼" above floor—straddle capacity 16¼". Weighs only 270 pounds. Price $240.00 F.O.B. New Bremen, Ohio.

Highly Maneuverable

MODEL FL-1000—



1,000-lb. capacity*. Maximum lift 54" above floor—lowers to floor—straddle capacity 38". Weighs 330 pounds. 4" x 24" sliding forks—easily adjustable to any position from 11" to 34". Price $290.00 F.O.B. New Bremen, Ohio. Optional "Snap-On Safety Platform" for quick conversion to lift table.

*Capacities rated on 20" load center.
Special lifts engineered to your specifications.

WRITE TODAY FOR DETAILS!
HYDRAULICS DIVISION
CROWN CONTROLS Co., Inc. NEW BREMEN, OHIO

CC13

For more details circle NED-814 H7 on enclosed inquiry slip

New idea in pipe insulation

It's Snap*On, the only one-piece pipe insulation molded of fine glass fibers. Just open the seam—and it snaps on the pipe. Comes in 3 ft. and 6 ft. sections that one man can apply. Lowest applied cost and highest thermal efficiency of any insulation for cold and hot piping up to 350°. Lighter . . . tougher . . . permanent, yet reusable. Available in 62 cities, plain or jacketed in sizes up to 33". See Yellow Pages under "G-B Insulation" for local distributor or WRITE TODAY FOR NEW BROCHURE. **Gustin-Bacon Manufacturing Company,** 262 W. 10th St., Kansas City, Mo. *Advt.*

For more details circle NED-815 H7 on enclosed inquiry slip

Clippard's NEWEST MINIATURE AIDS TO AUTOMATION!

The pioneer manufacturer of miniature pneumatic devices proudly presents a broad new line of small, but mighty, air components. We are sure you will find them most useful in automatic control and work feeding operations and new end products . . . especially where space or weight is a problem!

Included are new ¾" bore single and double ram double acting cylinders in 1, 2, 3, 4, 5 and 6-inch strokes; improved spring return cylinders; two and three way air valves and many clever new interchangeable fittings and accessories you have asked for. All are precision made and life tested for millions of cycles of trouble-free operation.

Clippard miniature pneumatic devices have established an enviable "in use" reputation with America's most progressive manufacturers, large and small. You will find them equally dependable, sturdy and easily mounted . . . indispensable for speeding production and improving work quality . . . AUTOMATICALLY!

WRITE NOW FOR NEW CATALOG!

Clippard INSTRUMENT LABORATORY, INC.
7358-N Colerain Road, Cincinnati 24, Ohio

Manufacturers of R.F. Coils, Electronic Equipment, Miniature Pneumatic Devices

For more details circle NED-816 H7 on enclosed inquiry slip

POR-ROK (POUR ROCK) Fast Setting Cement

PERMANENTLY ANCHORS BOLTS IN CONCRETE WITHIN 30 MINUTES!

Securely fastening machinery, hand rails, seats, fixtures or any type of equipment to concrete by means of anchor bolts can now be done quickly, easily and safely with Por-Rok Quick Setting Cement.

Por-Rok successfully replaces lead and sulphur, and costs considerably less. Applied cold, there is no heating hazard. Simply mix Por-Rok powder with water and pour around bolt. Within 30 minutes the cement sets hard and the bolt is anchored permanently.

Por-Rok also makes quick, lasting repairs to holes and breaks in concrete floors with little or no interruption to normal traffic. It is self-bonding, self-leveling, oil-resistant, does not shrink. Compression strength of 4500 lbs. p.s.i. in one hour GUARANTEED.

For complete information—without obligation—write

THE HALLEMITE MFG. CO.
2452 WEST 25th ST. • CLEVELAND 13, OHIO SINCE 1927

For more details circle NED-817 H7 on enclosed inquiry slip

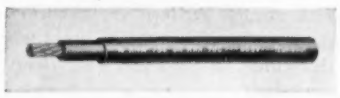
New Processes & Materials

PLASTIC PATCHER
repairs metal and nonmetal parts

Small holes or cracks in all metals and most nonmetallic materials are repaired readily with Resiweld Plastic Alloy No. 600. By applying a heavy build-up of this epoxy based resin, major repairs can be made to pipes, tanks or equipment. It produces a durable, high strength bond that resists water, solvents, most chemicals and shock. Bond will not shrink, crack, swell or peel throughout temperatures from −60 to 200° F. Trial kit is available for $1. Made by **H. B. Fuller Co.,** 255 Eagle St., St. Paul, Minn.

For more details circle NED-818 H7 on enclosed inquiry slip

WIRE & CABLE
heat and moisture resistant



General use in wet or dry locations is application for type RHH 90° C-RHW 75° C heat and moisture resistant, rubber insulated and fibrous covered wire and cable. Included in the 1956 National Electrical Code, it is listed by Underwriters' Laboratories for 600-v service in sizes 14 to 6 AWG. Nepcozone butyl insulation has ozone and corona resistant properties. It carries a dual rating and has "mark and measure" designations every 2 ft. Made by **National Electric Products Corp.,** 2 Gateway Center, Pittsburgh 22, Pa.

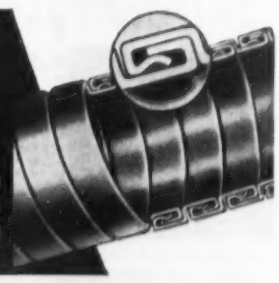
For more details circle NED-819 H7 on enclosed inquiry slip

BUILT-UP ROOFING
applied over old roofing

Improved Vulca-Dek system permits installation of new roofs over old roofing, eliminating the expense of removing the old surface. Hold - Tite sealing cement bonds new felt to old surfaces as well as bonding individual felt piles firmly together. Also used are heavy duty asphalt-saturated 53-lb roofing felt and siliconed Rufferseal. Latter is spread over the surface as the final step in either single or two-ply built-up roofs. Made by **Monroe Co.,** Dept. M-1, 10703 Quebec Ave., Cleveland 6, O.

For more details circle NED-820 H7 on enclosed inquiry slip

Select FLEXON® REX-TUBE



for Economical Conveying of Liquids • Gases • Granular Solids

Flexon Rex-Tube convoluted flexible metal hose is the ideal answer to conveying non-searching liquids, gases and powdered or granular solids, particularly where flexing is manually controlled. Economically priced, yet ruggedly made for extremely long life, Rex-Tube meets hundreds of low to moderate pressure applications where flexibility is required.

Rex-Tube can provide big savings by eliminating the need for complicated piping and conveying systems. It will pay you to investigate the advantages Rex-Tube offers. Write today for complete information.

RT-12

FLEXONICS CORPORATION
Formerly Chicago Metal Hose Corporation
1343 S. Third Avenue, Maywood, Illinois
Manufacturers of flexible metal hose and conduit, expansion joints, metallic bellows and assemblies of these components.
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario

For more details circle NED-821 H7 on enclosed inquiry slip

HOW SORENG "TT"* STOCK SOLENOIDS *Can Meet Your Design Requirements Economically*

All the exclusive custom features that have made Soreng a-c solenoids the most widely used in the world are embodied in the design of our stock line. One of our four basic types will probably fit your application . . . at the same time, you benefit from production run prices made possible through standardization.

For complete information write for Bulletin CF-124. It contains drawings, power curves, applications and other technical data.

CONTROLS COMPANY OF AMERICA
SORENG DIVISION
9577 Soreng Avenue • Schiller Park, Ill.

For more details circle NED-822 H7 on enclosed inquiry slip

SAVE MONEY! By Building Your Own Controlled Temperature Infra-Red Ovens.

with **driQuik INTERLOCKING SECTIONS**

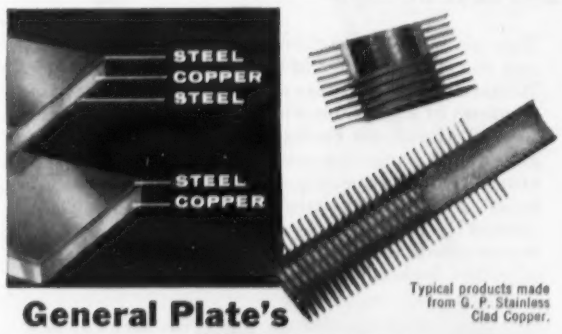
The only lava coated ceramic type generators ever developed, they give more even, more intense far infra-red energy with less power consumption. Dark burning—no injury to eyes. Impervious to vibration, shock, vapor and moisture.

OVENS ANY SIZE OR SHAPE

NO SOCKETS TO BURN OUT— therefore a minimum of maintenance expense in any application, making infra-red drying, heating of metal, plastic, wood, chemicals, etc., a real economy and time saver. Write TODAY for literature.

driQuik DIVISION DRY CLIME LAMP CORP. GREENSBURG, INDIANA

For more details circle NED-823 H7 on enclosed inquiry slip



Typical products made from G. P. Stainless Clad Copper.

General Plate's Stainless Clad Copper
Combines Desirable Properties of Copper and Stainless to Offer New Advantages

When two or more metals are clad into sheet, desirable properties of each combine to produce a material having new and useful characteristics not present in either metal separately.

Thus General Plate's Stainless Clad Copper offers the superior thermal and electrical conductivity of pure copper combined with the high temperature corrosion resistance of stainless steel.

G. P. Stainless Clad Copper is available in widths up to 13" and thicknesses up to 1/16", single or double clad, in long lengths. It can be blanked, drawn, spun, formed, brazed, and spot or seam welded.

Let us send you complete information on G. P. Stainless Clad Copper — it may be just what you have been looking for. Write today for Catalog Sheet 727C — no obligation.

METALS & CONTROLS CORPORATION
General Plate Division
1808 Forest St. Attleboro, Mass.

For more details circle NED-824 H7 on enclosed inquiry slip

WRITE TODAY for details on this latest addition to Elgin's "Golden Circle" Rotary Tool Line of solid carbide burs and end mills.

ABRASIVES DIVISION, DEPT. I
ELGIN NATIONAL WATCH COMPANY
Elgin, Illinois

For more details circle NED-830 H7 on enclosed inquiry slip

How Alcoa Aluminum Fasteners make good windows even better

MEETS AWMA STANDARDS!

You can meet the highest standards of quality and the specifications of the AWMA (Aluminum Window Manufacturers Association) for prime windows of aluminum when you assemble with Alcoa® Aluminum Fasteners. Perfect color match and protection against both galvanic and atmospheric corrosion make for lasting good looks . . . consumer satisfaction. Complete stocks carried by your local Alcoa distributor fill every requirement. He is listed in the Yellow Pages of your telephone directory.

ALCOA ALUMINUM FASTENERS

THE ALCOA HOUR
TELEVISION'S FINEST LIVE DRAMA
ALTERNATE SUNDAY EVENINGS

Your Guide to the Best in Aluminum Value

Fill out coupon for facts, samples

Aluminum Company of America
2245-H Alcoa Bldg., Pittsburgh 19, Pa.

Gentlemen: Please send complete specification data and samples of Alcoa Aluminum Fasteners.

Name _____
Title _____
Company _____
Address _____

For more details circle NED-831 H7 on enclosed inquiry slip

New Literature & Catalogs

1/20 to 200-HP Motors

Marathon Electric Mfg. Corp.—Three hundred pages of data are condensed into 4-page 1957 condensed catalog on motors. This new edition covers current pricing for 1/20 through 200 hp sizes in general purpose fractional and integral horsepower motors. Slide base dimensions with diagrams and adapter information are included.

For more details circle NED-832 H7 on enclosed inquiry slip

Filters for Nuclear Power Uses

Cuno Engineering Corp.—Complete line of filters and filtration systems for use in nuclear power and research applications is covered in 6-page folder 54-102. Folder will acquaint nuclear engineers with the scope of company's line. Characteristics of various filter types and media used are described.

For more details circle NED-833 H7 on enclosed inquiry slip

Efficiency Drafting Unit

Stacor Equipment Co.—The Stacor-Matic adjustable drafting unit described in 6-page bulletin 603 provides a drafting surface for one man, adjustable in height from 37¾ to 45½ in. with toe touch control. Behind this, and combined with it, is a reference unit for the next man in line which includes drawer for reference drawings, a tool drawer, deep file drawer and large bookshelf.

For more details circle NED-834 H7 on enclosed inquiry slip

Flexible Metal Hose

Universal Metal Hose Co.—Complete range of flexible metal hose is covered with recommended pressures, temperatures and specific uses in 10-page catalog ID-100A. Seamless, corrugated and interlocked type, with or without packing, as well as styles of couplings used for each, are covered. Hose assemblies are used to transfer liquids and semiliquids, solids, and solids in powder or granular form.

For more details circle NED-835 H7 on enclosed inquiry slip

Stainless Steel Reactors

Pfaudler Co.—Latest sizes and styles of stainless steel reactors are listed in 16-page bulletin 944. Reactors described range in size from 5 to 2000 gallons, and are equipped with conventional and "dimpled" jackets. Drives, seals and stuffing boxes, agitators, fittings and accessories are also listed.

For more details circle NED-836 H7 on enclosed inquiry slip

Metalworking Facilities

Commercial Shearing & Stamping Co.—Two available 4-page bulletins, 50-P1 and 900-P1, respectively cover "Hydrospinning," a new metalworking facility of this company and "Stampings and Forgings, Custom and Standard." Hydrospinning is process by which ductile metals, usually cold, are precision formed into hollow, conical, spherical or cylindrical shapes by displacement of metal under high pressure.

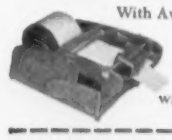
For more details circle NED-837 H7 on enclosed inquiry slip

use AVERY PRESSURE-SENSITIVE LABELS

- TRADEMARKS
- GUARANTEES
- NAMEPLATES
- DIAGRAMS
- PRICES
- INSTRUCTIONS
- "BUY" FEATURES
- WARNING
- INSPECTION
- APPROVAL SEALS
- "USE" INFORMATION
- CONTENTS INFORMATION
- PARTS IDENTIFICATION
- COLOR CODING

- *REDUCE LABELING COSTS*
- *ELIMINATE WASTE MOTION*
- *SPEED ASSEMBLY OPERATIONS*

In every department...from receiving to shipping...from receptionist to top management...there are many spots where Avery labels are saving industry thousands of dollars every year. Self-adhesive, they simplify and speed work wherever there's a need to *identify or inform, to warn, mask, inspect, merchandise or price.* You can save *time* and *money* with Avery labels.



With Avery electric dispensers labeling is as much as 5 times faster than with ordinary methods!

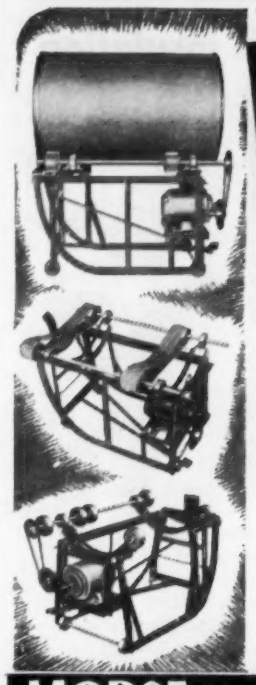
Write today for complete information.

AVERY ADHESIVE LABEL CORP., Custom Div. 102C
117 Liberty St., New York 6 • 608 S. Dearborn St., Chicago 5 • 1616 S. California Ave., Monrovia, Calif. • In Canada, 48 Haas Rd., Toronto 15, Ontario • Offices in Other Principal Cities

☐ More information, please...and free samples.
☐ Please have the Avery man call.

NAME _____
COMPANY _____
ADDRESS _____
CITY _____ ZONE ____ STATE _____
OUR BUSINESS IS: _____

For more details circle NED-838 H7 on enclosed inquiry slip



THE NEW "200" MORSE PORTABLE ROTATOR

CAN BE ADAPTED TO MOST ROTATING JOBS!

The ROTATOR can easily be moved from one job to another or steered into close quarters. It is available for tumbling fibre drums as well as steel drums from 1 to 55 gallons. Designed by Morse, the ROTATOR has many practical uses and has been found to pay for its low cost many times over. This Portable ROTATOR meets today's ever-present need to save time and labor.

Write for additional information.

MORSE MANUFACTURING CO. INC.
756 West Manlius St. East Syracuse, N. Y.

For more details circle NED-839 H7 on enclosed inquiry slip

EXTERMINATE THE LITTER BUG WITH BENNETT WASTE RECEPTACLES

Cleanliness is automatic by conveniently placing Bennett Waste Receptacles to invite their use. Yes, "litter bugging" is eliminated with these easy-to-use, sanitary and economical waste receptacles. Put them to work reducing your cleaning costs and increasing neatness.

Wherever people gather there is a logical location of Bennett Waste Receptacles —America's most complete line including self-closing and drop-in models. Write today for catalog and prices.

WRITE FOR FULLY ILLUSTRATED CATALOG

BENNETT SELF-CLOSING WASTE RECEPTACLES available in 12 models

THE BENNETT MANUFACTURING CO.
ALDEN, N. Y.
Bennett Bilt is Better Bilt

For more details circle NED-840 H7 on enclosed inquiry slip

ONE TOOL, CHANGEABLE BLADES
FOR ROUGHING, SEMI-FINISHING, FINISHING

RAPIDOR TURNING TOOLS

That's right! *One* holder for *three* different lathe operations . . . just change blades for roughing, semi-finishing or finishing. Nothing to it. And here's how Rapidor Turning Tools save you time and money...

1) Tool holder is set on center—blades are set automatically for quick original set-ups.
2) Blades are interchanged without moving holder —cuts down on change-over time.
3) Blades are resharpened from top only—cuts down expensive grinding time.
4) One holder will hold several different blades—keeps inventory to minimum.
5) Blades give long life due to unique shape and design.
6) Carbide tipped blades are designed so that maximum length of carbide is useable.

Sound good? It is! Write Bokum for complete information. Write today! Dept. T.

Blades available in H.S.S. or Carbide-Tipped

BOKUM TOOL CO. INC. 14775 Wildemere Ave. Detroit 38, Mich.

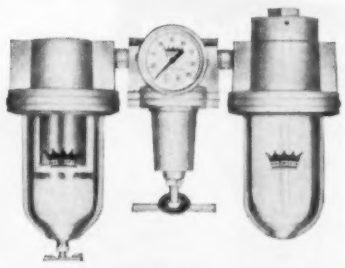
For more details circle NED-841 H7 on enclosed inquiry slip

SERVING INDUSTRY FOR 76 YEARS

Send Specifications for an estimate. Dept. 11

THE C.O. JELLIFF MANUFACTURING CORP.
Southport • Connecticut • USA

For more details circle NED-842 H7 on enclosed inquiry slip



"COMBO" UNITS
Bulletin 300

REGULATORS
Bulletin 301

FILTERS
Bulletin 302

LUBRICATORS
Bulletin 303

NEW *Crown* BULLETINS TELL HOW...

Hannifin's newest development, the Crown Line of FILTERS, REGULATORS and LUBRICATORS, saves money wherever air power is used. The filters remove dirt and scale without robbing you of precious power. The regulators let more air through when it's needed than other regulators do. The lubricators operate on minimum pressure differential—they are quicker and easier to fill, too. Available now—local, distributor stocks in many areas. Write for bulletins, for name of nearest distributor.

COMPLETE RANGE OF SIZES

HANNIFIN

Hannifin Corporation, 527 S. Wolf Road, Des Plaines, Ill.
FILTERS • REGULATORS • LUBRICATORS

For more details circle NED-843 H7 on enclosed inquiry slip

New Processes & Materials

EMERGENCY SAFETY PAINT glows when light source is removed

Afterglow of Glo-Spra phosphorescent paint gives off sufficient light to identify the painted object or area when the light source is removed. Supplied in aerosol containers, the emergency safety paint requires 5 to 10 minutes of exposure to daylight or artificial light to reactivate its glow. When used indoors, it will last indefinitely. Used outdoors in a protected area with a coat of Spiritzit clear weatherproof coating, it has a 1-year life. Available from **M-M-A, Inc.**, Dept. N, Box 411, Lancaster, Pa.

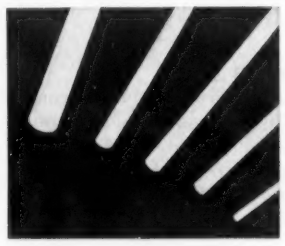
For more details circle NED-845 H7 on enclosed inquiry slip

ANTISTATIC BUFFING COMPOUND cuts, colors all types of plastics

Static electricity is dissipated from the finished part by an antistatic ingredient contained in PC-52 scratch-free plastic buffing compound. Formulated for such soft thermoplastic materials as acetate, styrene and the acrylics, it can also be used on thermosetting phenolics. Compound contains a soft abrasive for single-operation cutting and coloring, a lubricant to minimize roll-over or burning, and the antistatic agent. The antistatic properties are retained through subsequent handling operations. Material is available in all standard bar sizes for manual and automatic application. Made by **Hanson-Van Winkle-Munning Co.**, 10 Church St., Matawan, N. J.

For more details circle NED-846 H7 on enclosed inquiry slip

TEFLON RODS offered in various diameters



Bearings, bushings, gaskets, packings, pump and valve components, rings, disks and other machined parts can be made from extruded and molded Teflon rods, offered in a variety of diameters. Designated as Garlock 8764, the rods are suitable for −110 to 500° F service. Teflon has a low coefficient of friction, is nonadhesive and is unaffected by any acids, organic solvents, alkali solutions, oils or other lubricants. Dielectric qualities are good. Extruded rod is available unground from 0.200 to 2 in. diameter, and centerless ground from 0.200 to 1 in. Special diameters can be ordered. Made by **United States Gasket Co.**, 654 N. Tenth St., Camden 1, N. J.

For more details circle NED-847 H7 on enclosed inquiry slip

gagegard gagega gard gagegard ga

PROTECT PRESSURE-SENSITIVE INSTRUMENTS . . . POSITIVELY

GG gage gard

Seals off gage or manometer connection at any pre-set pressure. Will repeat within 1% of scale. Will release 2% below cut-off point.

Models available with cutoffs from 20" water to 9000 psig. liquids and gases. Designed to withstand and hold closed against 10,000 psig.

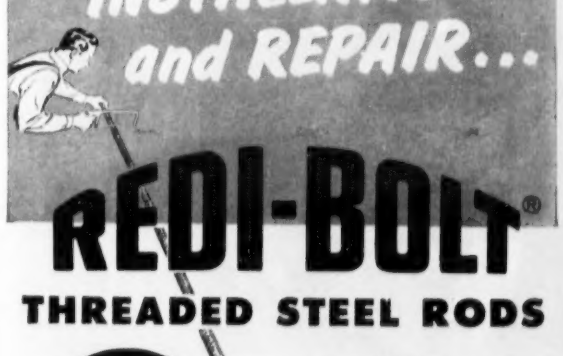
Marine models available.

Write for Bulletin 541-G for full details and prices.

INDUSTRIAL ENGINEERING CORPORATION
525 E. Woodbine, Louisville, Ky.

For more details circle NED-848 H7 on enclosed inquiry slip

FOR QUICK, ON-THE-SPOT *INSTALLATION and REPAIR...*



REDI-BOLT®
THREADED STEEL RODS

13 SIZES 3/16" to 1-1/2"

CUT TO LENGTH YOU NEED

HEAT AND BEND TO ANY SHAPE

NO SPECIAL BOLT INVENTORIES

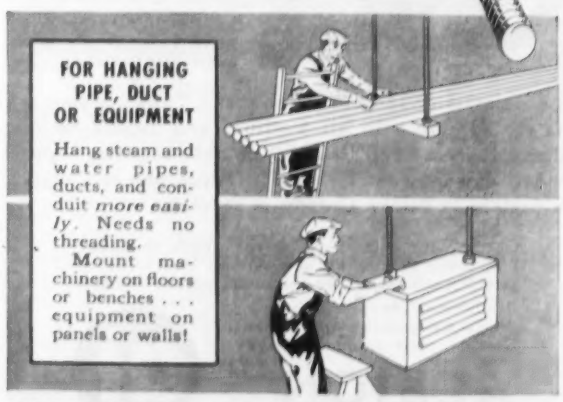
NO THREADING NECESSARY

Here's a versatile, new installation and repair material with 1001 industrial applications! If you want to get machinery back to work with the least possible delay . . . or make an installation promptly and easily . . . REDI-BOLT is the answer. Save time, trouble, and money with this precision-threaded steel rod. It eliminates big "special bolt" inventories, too. REDI-BOLT can be supplied in *zinc plate* or rust-resistant finishes and is available in 24" and 36" lengths (other lengths on special order) with *Standard National Coarse* and *SAE* or *National Fine* threads.

FOR HANGING PIPE, DUCT OR EQUIPMENT

Hang steam and water pipes, ducts, and conduit *more easily*. Needs no threading.

Mount machinery on floors or benches . . . equipment on panels or walls!



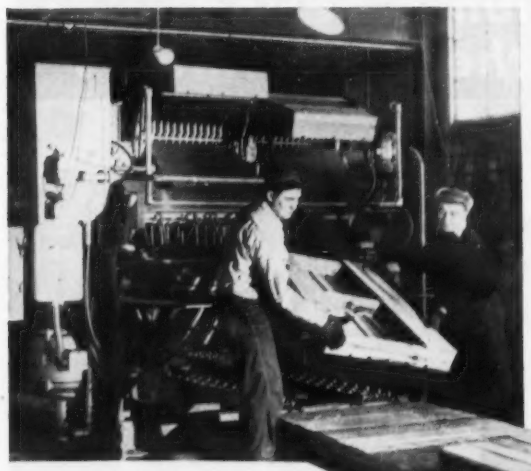
USE IT FOR PRODUCTION RUNS, TOO

Ask your Mill Supply House, or write

REDI-BOLT, Inc., 5312 Indianapolis Blvd., East Chicago, Ind.

For more details circle NED-849 H7 on enclosed inquiry slip

FMC STOPPED HAND HAMMERING—STARTED MACHINE NAILING at BETTER BUILT WOOD PRODUCTS



HOW *an automatic* FMC HARDWOOD NAILING MACHINE *eliminates Hardwood Splitting, provides Uniformly Nailed Square Pallets, produces Regular and Rush Orders on Time.*

DELMER LaCOUNT, President of Better Built Wood Products, says his FMC nailing machine and a few men turn out a couple of truckloads of hardwood pallets a day. Hand-nailing is "out" in his plant; an FMC automatic nailer has taken over to 1) increase sales, 2) speed up operations, 3) increase volume, 4) turn out a better product and 5) cut costs and accidents. Labor relations are better too; men feed the machine instead of swinging hammers!

Why don't you substitute the automation of an FMC hardwood nailer for hand-nailing? As LaCount says: *"We've had no mechanical failures."* You'll build a better product and bigger sales when you automatically nail with an FMC hardwood nailing machine. *Request bulletin today!*

Located at Anston, Wisconsin, Better Built is using a Series 401.000 hardwood nailer for better pallet quality, higher production rates and happier employees.

FOOD MACHINERY AND CHEMICAL CORPORATION
NAILING MACHINERY SECTION
RIVERSIDE, CALIFORNIA

Please send full details about the Series 401.000 Hardwood Nailer.

Name _____
Company _____
Address _____
City _____ State _____

For more details circle NED-844 H7 on enclosed inquiry slip

New low cost die protection with CIRCUIT MASTER

- Shuts down automatic power presses before dies and tools are broken
- Completely automatic
- No adjustments
- No operator supervision
- No maintenance
- Simple installation

The revolutionary new mechanical-electronic control . . . CIRCUIT MASTER stops any automatic press on first contact with overloads due to jams, improper feeding, freezing of parts, pile-ups, oversized stock, buckling, double thickness, etc.

Unlike microswitches, fingers, etc. which are sometimes used to protect specific sections of the die and require constant adjustment, the CIRCUIT MASTER will protect the entire die.

Write for complete technical data. Application engineering service on request. No obligation.

U. S. and Foreign Pat. Pending

WINTRISS, INC.

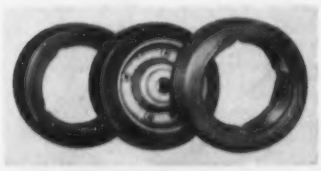
20 Vandam St., N. Y. 13, N. Y. CHelsea 2-0105

For more details circle NED-850 H7 on enclosed inquiry slip

Exclusive new design permits greater versatility, capacity and longer wheel life.

ALBION DEMOUNTABLE TIRE WHEELS

Albion Industries now offers a completely new, uniquely different type of replaceable tread wheel with a choice of floor-protective tires. Fast, simple and easy tire replacement is facilitated by the removal of just four bolts which retain the entire assembly. The formed demountable side plates are of sturdy 12-gauge steel and are bolted over a tubular steel hub. All exposed steel parts are Cadmium plated for positive corrosion resistance. Roller bearings are securely held by formed cups that retain lubricant and exclude foreign matter.



Albion Demountable Tires are available in the "Cushion", "Fibre-filled" and "Neoprene" type treads — all are 1⅛" thick for greatest possible cushioning action, longer life and better floor protection.

The new Demountable Wheels and Tires are immediately available in all medium and regular duty Albion casters (425 to 1200 pounds capacity—per wheel) and they can be used as replacement wheels on casters or trucks already in service.

Check your caster and wheel needs now, see how many places the new Albion Demountable Tire Wheels can save your equipment dollars.

Don't forget...to request the new Albion Demountable-Tire Wheel circular—yours for the asking!

ALBION INDUSTRIES, INC.

For more details circle NED-851 H7 on enclosed inquiry slip

New Literature & Catalogs

Weld Fasteners

Ohio Nut & Bolt Co.—"Ohio Weld Fasteners—The Primary Fastener in Fastener Assemblies" is a 40-page illustrated guide for design and production engineers concerned with metal fabrications and assemblies. Application data on 10 different types of resistance weld-applied weld nuts are included. Also covered are brackets, bosses, clips, pads, knobs, adjustable leveling screws and handles.

For more details circle NED-852 H7 on enclosed inquiry slip

Flexible Conveyors

Power-Curve Conveyor Co.—Nearly 100 pages of descriptive and application information on Power-Curve conveyor products are presented in illustrated catalog No. 567. Described are truck and box car loaders that convey around corners; bag and package conveyors; bag flatteners, pallet loaders and elevators; and special conveyors for practically any material handling need.

For more details circle NED-853 H7 on enclosed inquiry slip

Injection Molding Accessories

Injection Molders Supply Co.—1957 catalog of injection molding accessory plant equipment contains 48 pages of data on grinders, drum tumblers, mounting pads, pneumatic bulk material conveyors, mold temperature indicators, mold releases, gate cutters, hopper magnets, drying ovens, heating cylinders, nozzles and many other items that are immediately available from stock. Prices are given.

For more details circle NED-854 H7 on enclosed inquiry slip

Custom-Designed Rubber Parts

Western Rubber Co.—Expanded facilities for producing lathe cut, custom-designed rubber parts are illustrated and described in 4-page bulletin. Washers, gaskets, bushings and rings of almost any size and shape are made from tubed and ply-built compounds. Typical parts are shown.

For more details circle NED-855 H7 on enclosed inquiry slip

Automatic Drilling & Tapping Units

Hypneumat Inc.—Air or hydraulically powered drilling and tapping units can be used for wide range of machining operations when mounted as a component of machine tools or automated equipment. Models with practically any desired feed, capacity and speed can be supplied to meet machining requirements.

For more details circle NED-856 H7 on enclosed inquiry slip

Industrial Television Equipment

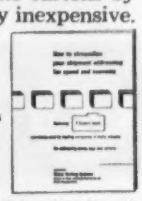
Philco Corp.—Industrial television equipment described and illustrated in 8-page form PC6582JW includes cameras, camera controls, monitors, power supplies and such accessories as a panning and tilting mechanism, remote iris and focus control, and explosion-resistant and weatherproof housings

For more details circle NED-857 H7 on enclosed inquiry slip

Fastest way to address cartons

Here's a way to address cartons that puts less modern methods to shame. Inexpensive, paper stencil is cut on a typewriter—separately or as by-product of shipping paper-work. It's then attached to small handprinter to imprint addresses directly on containers within "label frames" that have been pre-printed on the cartons by the carton manufacturer. Fast, clean, very inexpensive.

1 of 7 shipment addressing ideas described in new 16-page booklet. Send for free copy



Weber

Weber Marking Systems
Div. of Weber Addressing Machine Co., Inc.
Dept. 21-H
Mount Prospect, Ill.

For more details circle NED-859 H7 on enclosed inquiry slip

For Bundling or Banding

use high strength, low stretch Shuford's **SHURTAPE®**

SHURTAPE GS-23 is a glass filament flatback paper pressure-sensitive strapping tape that's strong and tough . . . and easy to unwind from the roll!

Ideal for bundling conduit or pipe or for banding wire or cable. Sticks tight, strips easy and stretches less than 3%! High tensile strength of 260 lbs. and glass filament reinforcing imbedded in the tape insure excellent shock and abrasion resistance.

SHURTAPE GS-23 resists water, oil and solvents . . . stores indefinitely without drying out. Comes in red, silver, or natural colors.

For details on the SHURTAPE line, including paper electrical tapes, write

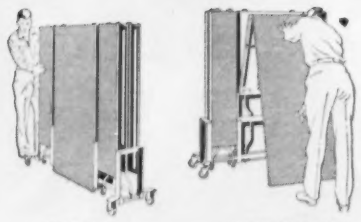
CLOTHES LINES * TWINES
PRESSURE-SENSITIVE PAPER TAPES
SASH CORDS * WEATHER STRIPPING
COTTON & RAYON YARNS * EXTRUDED PLASTICS

Shuford Mills, INC. SINCE 1880 HICKORY, N. C.

World's Largest Manufacturer of Cotton Cordage

For more details circle NED-860 H7 on enclosed inquiry slip

Here's the answer to lunch period seating—Right in the department!



ROLLS OUT OF THE WAY — UNFOLDS AND FOLDS IN SECONDS

TRANSI-FOLD
FOLDING TABLES AND BENCHES

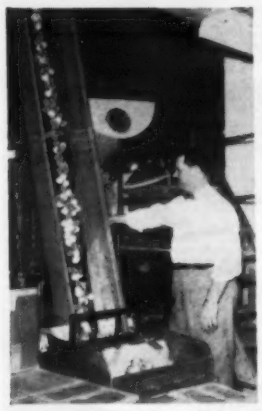
These rugged, husky, compact units are in broad industrial use and proved practical in large and small plants. They store against the wall in minimum space in the department and set up in seconds in aisleways. Because of travel time, congestion and other complications central cafeterias are being abandoned in favor of mobile or area food service but fixed tables take up too much room. They are invariably used as storage surfaces, are unsanitary and never ready for use.

These folding tables and benches enable you to provide respectable seating and gain many economies in time and space. Understructures are welded steel. Warp-proof tops are 7-ply Ph. mahogany, surfaced with high-pressure laminated washable plastic with formed steel reinforcing bars. Edges are trimmed with permanently attached stainless steel. Write for folder.

SCHIEBER SALES COMPANY • DETROIT 39, MICHIGAN

For more details circle NED-858 H7 on enclosed inquiry slip

Convert belt conveyors to automatic magnetic conveyor-elevators with ERIEZ Magna-Rail units



At this R. T. French Company plant, an Eriez Magna-Rail *automagnetically* elevates and releases caps for mustard jars into a capping machine. Magna-Rail eliminated a hand operation which required elevating them to a platform and emptying them into the hopper.

Want to speed up production, and lower your operating costs? It's easy; convert your ordinary conveyors to magnetic conveyors by installing Eriez Magna-Rail units under your lines. These easy-to-install lifetime, permanent-powered magnets give a safe, positive hold to ferrous items such as nails, bolts, caps, cans, parts, scraps, etc. And they help reduce damaged parts . . . eliminate manual handling . . . prevent loading delays and manpower fatigue. Less floor space is needed for conveying lines and lines can move much faster . . . and as steep as 75 to 80 degrees. Used with other Eriez HI-POWR magnetic equipment, Magna-Rail units can readily be adapted to many phases of automation operations.

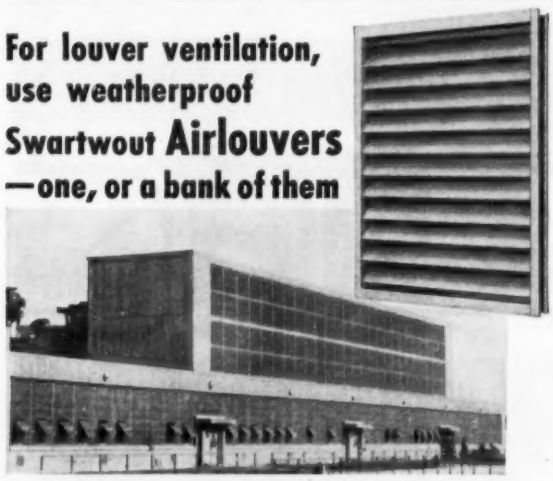
Eriez does not design, build or sell material handling systems, but serves people *who do* in areas where magnetic equipment should be incorporated. FOR BULLETIN, write ERIEZ Mfg. Co., 80-V Magnet Dr., Erie, Pa.

ERIEZ HI-POWR MAGNETIC SEPARATORS

Magnetic SEPARATION AUTOMATION VIBRATION Equipment

For more details circle NED-861 H7 on enclosed inquiry slip

For louver ventilation, use weatherproof Swartwout Airlouvers —one, or a bank of them



Virtually tailor-made to fit your need, at economical standard cost

The fixed Airlouvers in the upper wall of this filter house (of a test cell building) present a pleasing uniform pattern because of Swartwout's wide range of sizes. Made also in adjustable style, featuring positive closing and quick change of blade position, with choice of operating methods. Write for Bulletin ALO-C.

The Swartwout Company, 18511 Euclid Ave., Cleveland 12, Ohio

Swartwout ROOF VENTILATORS AND VENTILATING LOUVERS

ALSO AUTRONIC PROCESS CONTROL EQUIPMENT

For more details circle NED-862 H7 on enclosed inquiry slip

Really Smooth Speed Control of D-C Motors from A-C Lines

Variac® Motor Speed Controls Feature:

- ★ Wide Speed Range — from zero to full rated speed
- ★ Full Torque at ANY Speed
- ★ No Torque Pulsation even at lowest speed
- ★ High Starting Torque
- ★ Extra Fast START-STOP-REVERSE — dynamic braking on most models
- ★ Instant Start — no electronic tubes — no warm-up time
- ★ Fifteen models for controlling motors from 1/15th hp and less to 1½ hp

Write for Variac® Motor Control Bulletin

GENERAL RADIO Company

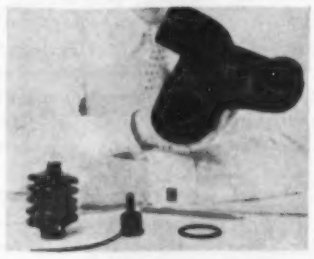
275 Massachusetts Avenue, Cambridge 39, Massachusetts, U.S.A.

Broad Avenue at Linden, Ridgefield, N. J. NEW YORK AREA 1000 N. Seward St. LOS ANGELES 38
8055 13th St. Silver Spring, Md. WASHINGTON, D. C. 1150 York Road, Abington, Pa. PHILADELPHIA
1182 Los Altos Ave., Los Altos, Calif. SAN FRANCISCO 6605 W. North Ave. Oak Park, Ill. CHICAGO

For more details circle NED-863 H7 on enclosed inquiry slip

New Processes & Materials

RUBBER & PLASTIC PARTS made by low-cost casting method



Kotokast forming method employed to make prototype parts is reportedly low in cost, even for very short runs. Parts can be made from plastics, latex or various synthetic elastomers. Illustrated complex prototype boot was produced at a cost of only $450, as compared with estimated tooling cost of $2900 for conventional methods. O-rings have been made for $25 for 12 rings as compared with $54 tooling cost by standard methods. Service offered by **Minnesota Rubber & Gasket Co.**, 3630D Wooddale Ave., Minneapolis 16, Minn.

For more details circle NED-864 H7 on enclosed inquiry slip

HEAT TREATABLE ELECTRODE for high tensile steel fabrication

Easily applied, regardless of current or position, Eutectrode 71 AC-DC heat treatable electrode is suited for fabrication of chrome-moly steel and other high tensile alloy steels. Deposits have heat treating characteristics similar to the base metal. As-deposited tensile strength is up to 100,000 psi. Electrode is spatter and slag interference-free, can be used with reverse or straight polarity on direct current, and has a controlled solidification rate which permits bridging of poor-fit gaps without burn-through. Sizes of 3/32, ⅛, and 5/32-in. are available. Made by **Eutectic Welding Alloys Corp.**, Dept. P, 172nd St. & Northern Blvd., Flushing 58, N. Y.

For more details circle NED-865 H7 on enclosed inquiry slip

PLASTIC DRAINAGE PIPE handles corrosive liquid wastes

Polyvinyl chloride pipe and drainage fittings for corrosive liquid waste systems have smooth internal walls and are designed to eliminate crevice corrosion and provide optimum flow. Schedule 40 IPS pipe is available in 10 and 20-ft lengths and 1½ to 4 in. diameters. Molded socket type fittings are offered in 90-degree Y-branch tee, 45-degree branch T-Y cross, coupling, 90-degree short branch cross, and socket-to-socket and threaded-to-socket increaser bushings. Joints are made with solvent cement applied with a brush. Made by **Alpha Plastics Inc.**, Dept. NED, Okner Pkwy., Livingston, N. J.

For more details circle NED-866 H7 on enclosed inquiry slip

FOR AIR-DUST OR FUME CONTROL...

Get this FREE catalog

WRITE TODAY FOR CATALOG #70 SHOWING NEW INDUSTRIAL APPLICATIONS

FLEXAUST hose and PORTOVENT retractable ducts are made of strong durable neoprene coated nylon or cotton fabrics, wire reinforced for suction or pressure uses. Sizes 1¼" to 36" i.d.

INSTALLED IN MINUTES . . . IN SERVICE FOR YEARS

THE FLEXAUST COMPANY

DEPT. NED-8 100 PARK AVE., NEW YORK 17, N. Y.

DISTRIBUTORS IN ALL PRINCIPAL CITIES

For more details circle NED-867 H7 on enclosed inquiry slip

Drill Hardened Steels without Annealing –

With the new, improved "HARDSTEEL" Drill, you can do accurate, smooth drilling, countersinking, counterboring and reaming in steels hardened by any process without first annealing the work. And they work with equal ease on work-hardening steels and high carbon—high chrome steels of any degree of hardness.

"HARDSTEEL" Drills fit standard drill presses. They save time and reduce rejects. They permit engineering changes requiring additional drilling after hardening. And parts drilled after hardening always match at assembly.

Write for a copy of the "HARDSTEEL" Operators Manual showing how "HARDSTEEL" drills are cutting costs in thousands of plants.

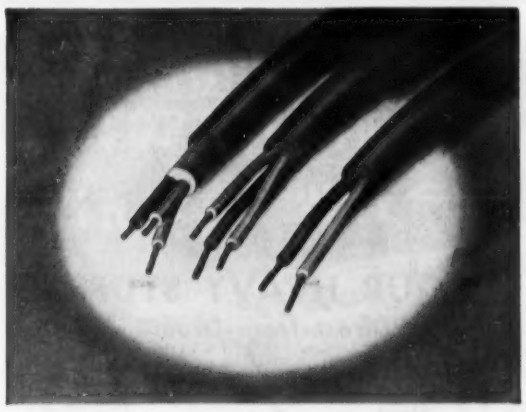
You Harden It—We'll Drill It— With "HARDSTEEL"

BLACK DRILL COMPANY, INC.

1380 East 222nd St. • Cleveland 17, Ohio

"HARDSTEEL"

For more details circle NED-868 H7 on enclosed inquiry slip



3 NEW LINES OF CORDS AVAILABLE

Now Anaconda offers a new full line of cords for *each* major application. You can select the *one* best suited for your needs—based on good engineering and sound economy. SECURITYFLEX* Cords for severest applications; INDUSTRIAL "all-purpose" Cords for hard usage; SERVICE Cords used with most appliances. All are made with typical Anaconda emphasis on quality! Call your electrical wholesaler or the man from Anaconda today. And send for Anaconda's new free bulletin: "Portable Cords." Anaconda Wire & Cable Company, 25 Broadway, New York 4, New York.

6689

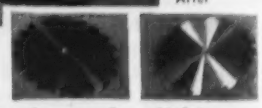
*Reg. U. S. Pat. Off.

ANACONDA®

For more details circle NED-869 H7 on enclosed inquiry slip

FOR NATIONALLY FAMOUS HEINEMANN SAWS

Below: Heinemann Saw before and after Brightboy polish. Left: Before; Right: After



A mirror like Brightboy finish not obtainable by any other form of polishing

"Brightboy's unique RUBBER and ABRASIVE action produces the superb finish which reflects the high skill of our craftsmen and our use of the finest materials", says Mr. William Heinemann of Heinemann Saw Corp., Canton, Ohio.

FOR MANUFACTURING & MAINTENANCE OF TOOLS SINGLE-STEP BURRING, CLEANING, FINISHING, POLISHING

An Entirely New Concept of Abrasive Applications

Stock numbers, match-mated to your requirements. Silicon Carbide and Aluminum Oxide grains, from extra fine to extra coarse. Soft, firm and tough rubber binders. Ask your dealer for catalog listing grains, textures, applications, machine speeds. Write us if he cannot supply you or on any problem in which finishing is involved.

BRIGHTBOY INDUSTRIAL DIVISION
WELDON ROBERTS RUBBER CO.
95 North 12th Street Newark 7, N.J.

America's Pioneer Manufacturer of Rubber-Bonded Abrasives

WELDON ROBERTS Brightboy RUBBER CUSHIONED ABRASIVES

For more details circle NED-870 H7 on enclosed inquiry slip

Cut Costs... Speed work with a BOSCH* Builder's Hammer

Gouge, drill, or chisel in any type material — faster, easier and at lower cost — with a Bosch Builder's Hammer. It delivers heavy blows for hard material, high-frequency blows for softer material.

The Bosch Hammer also gives you *automatic rotary impact action for drilling*. New users report: "Amazingly fast performance" and "Maintenance costs cut 40%."

Write for more information or contact your nearby Homelite representative for a free demonstration.

Available with either 110 Volt AC-DC or high-cycle motors.

*BOSCH (Germany)

Manufacturers of Carryable Pumps Generators • Blowers Chain Saws

Distributed by: HOMELITE a division of Textron Inc. 8508 Riverdale Ave., Port Chester, N.Y.

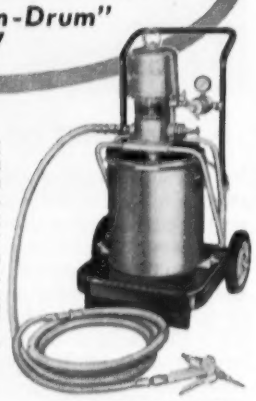
For more details circle NED-878 H7 on enclosed inquiry slip

THE OLD WAY

If you handle semi-solids manually, you have a slow, messy procedure. If your material is so heavy it won't pour . . . or if it even stands by itself . . . now you can *pump* it!

PUMP YOUR HEAVY STUFF "Direct-from-Drum"

THE *New* WAY



● Now, with Graco's amazing Powerflo pumps, you can apply the economies of pumping to a wide range of heavy, nearly solid materials. Air-operated Powerflos pack tremendous power, mount easily into pails or drums. Powerflo pumps can supply material for extruding, spraying, transferring. Write for a copy of the new Powerflo Catalog!

POWERFLO PUMPS

GRACO

GRAY COMPANY, INC.
Engineers and Manufacturers
87 Graco Square, Minneapolis 13, Minn.

FACTORY BRANCHES
New York (Long Island City) • Philadelphia • Detroit • Chicago • Atlanta • San Francisco

For more details circle NED-879 H7 on enclosed inquiry slip

Features information* NEVER AVAILABLE BEFORE *in slide chart form

For the first time, with slide chart ease, convenience, and accuracy, you can put your finger quickly on a host of facts such as speeds and feeds for machining, drilling and threading stainless steels.

Second side is an up-to-date version of Carpenter's earlier issue Slide Chart. Contains all you need know to select the proper stainless for drawing, forging, heading, welding, roll forming, etc. Get your copy of this pocket-size reference today!

THE CARPENTER STEEL COMPANY
118 W. Bern St., Reading, Pa.

Please send me a copy of your new Carpenter Stainless Slide Chart. (Please print)

Company Name _____
Individual Name _____ Title _____
Address _____
City _____ Zone _____ State _____

For more details circle NED-880 H7 on enclosed inquiry slip

New Literature & Catalogs

Electro-Magnetic Cycling Drive Unit

Cycledynamics Inc.—Clutched starting, braked stopping, inching, positioning, interim holding, selective acceleration and deceleration and torque-limiting are possible with the Cycledyne electro-magnetic cycling drive unit. Five basic sizes fill cyclic drive requirements from fractional to 75 hp. Details are provided in 12-page brochure CD-557.

For more details circle NED-881 H7 on enclosed inquiry slip

Colored Concrete Floor Topping

L. Sonneborn Sons, Inc.—Uses of Harcol Redi-Mixed nonmetallic dry mix for hardening and coloring interior and exterior concrete floor toppings are outlined in pocket-size brochure BP 1047. It contains color chips of the product and describes how its manufacturing process prevents washing out of color pigments and assures color uniformity.

For more details circle NED-882 H7 on enclosed inquiry slip

Variable Speed Belts

Worthington Corp.—Highlighted in 8-page bulletin 1640-B1 on Worthington Goodyear variable speed belts are 4 pages of tables giving the belt applicable to various variable speed unit manufacturers' belt part numbers. Belts have built-in synthetic fiber cords, arched cross-section, abrasion-resistant cover stock, accurate notching on underside and static conductive properties to reduce fire hazards.

For more details circle NED-883 H7 on enclosed inquiry slip

Industrial Plastics Fabrications

L. A. Darling Co., Plastics Div.—Presentation booklet on "Industrial Plastics Fabrications" features interesting graphic examples of plastic fabrication methods with illustrations of the types of products best suited to each method. Blow forming, vacuum forming and reinforced glass fiber laminating are covered.

For more details circle NED-884 H7 on enclosed inquiry slip

Rotary Cutting Tools

M. A. Ford Mfg. Co.—High speed steel and carbide cutters, countersinks, carbide end mills and special tools are among the Ford cutting tools listed in 12-page catalog 601. Tools are ground to tolerances as close as 0.0002-in. on precision grinding equipment. Recommended operating data are tabulated. Price list to catalog 601 is a supplement.

For more details circle NED-885 H7 on enclosed inquiry slip

Self-Drilling Expansion Anchors

J. D. Polis Mfg. Co.—Bulldog combination drill and expansion anchors which bite into concrete instantly when driven by an electric or air hammer are described in 6-page illustrated catalog 57. Also covered are pin drive bolts which hold securely when driven in drilled holes. Stud, tie-wire and threaded shell types of anchors are offered.

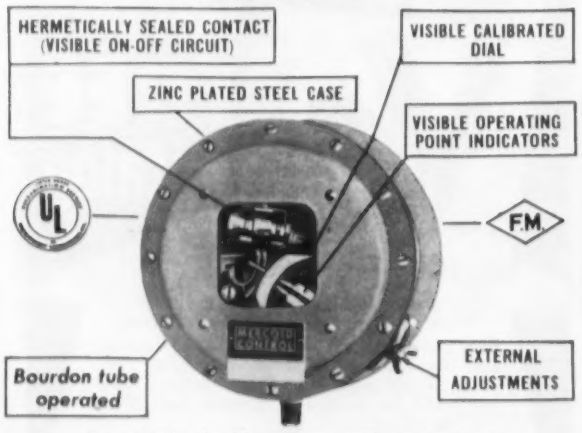
For more details circle NED-886 H7 on enclosed inquiry slip

Splash Proof Moisture Tight Semi-Dust Tight

Drip Tight **MERCOID®** Sleet Proof

WEATHER RESISTANT CONTROLS

NEMA 1A, 2, 3, 4



Available for Pressure or Temperature

WRITE FOR BULLETIN 6-18

THE MERCOID CORPORATION
4201 Belmont Avenue, Chicago 41, Illinois

For more details circle NED-887 H7 on enclosed inquiry slip

The Amazing Tyler SPYRAL BLADE

SAWS ANY MATERIAL IN ANY DIRECTION... up or down... right or left... even in circles!

Fits any standard hacksaw or coping saw frame. Leaves clean, smooth edge without chipping or tearing. Adapter sets available for Delta 14" bandsaws and all Do-All machines.

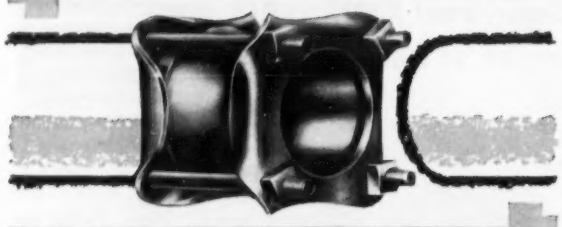
Hacksaw blades — 29c each in lots of 10 to 49 blades. Prices on larger quantities and other items on request.

See your industrial supply jobber . . . or write to:

TYLER MANUFACTURING CO. 1005 W. Arbor Vitae Ave. Inglewood, Calif.

For more details circle NED-888 H7 on enclosed inquiry slip

Join Plain-End Pipe



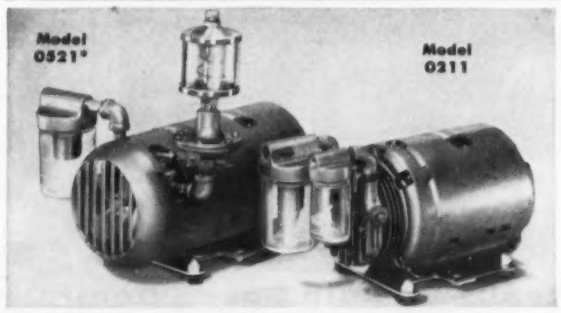
WITHOUT THREADING

Ideal for joining pipe on pumps, compressors, engines, tank lines, cooling systems—in fact, wherever small piping is used. The quickest, easiest, most economical way to join plain-end pipes permanently is with Dresser Style 38 Couplings. Fast? . . . a 4-minute connection! And a wrench is the only tool you need. These couplings absorb expansion-contraction stresses without leakage . . . for years of rugged, dependable service. Sizes from 3/8" ID through 2" OD. Write today for FREE catalog.

DRESSER® MANUFACTURING DIVISION

30 Fisher Ave., Bradford, Pennsylvania

For more details circle NED-889 H7 on enclosed inquiry slip



You get 10 big Integral-Motor-Pump advantages in these two NEW types (three models) of

GAST ROTARY AIR PUMPS

Model 0211
1/6 hp, to 1.3 cfm, 25 psi or 27" vac.

Model 0321
1/4 hp, to 2.2 cfm, 25 psi or 28" vac.

Model 0521
1/3 hp, to 3.8 cfm, 20 psi or 28" vac.

*0321 similar in appearance.

1. Latest type G.E. "Form G" motors.
2. More compact than other pumps.
3. Total weight reduced 1/3—cuts shipping costs.
4. Motor mounting time and labor eliminated.
5. Simple, trouble-free rotary-vane design.
6. Vanes take up their own wear automatically.
7. Positive displacement, pulseless air delivery.
8. Improved appearance—smoother exterior.
9. Dependable for original equipment; plant use.
10. Forced air fan cooling on Models 0321 & 0521.

Write for new Bulletins V-356 and P-356! Gast Manufacturing Corp. P.O. Box 117-R Benton Harbor, Michigan.

Original Equipment Manufacturers for Over 25 Years

GAST ROTARY • AIR MOTORS TO 4 H.P. • COMPRESSORS TO 30 P.S.I. • VACUUM PUMPS TO 28 IN.
See Our Catalog in Sweet's Product Design File

For more details circle NED-890 H7 on enclosed inquiry slip

A MOUNTAIN of POWER

—or a touch of pressure

POWER FOR BIG JOBS—This Rodgers 600-Ton Inclined Forcing Press is forcing a large gear and sprocket from a mine machine shaft.

The heavy machines and equipment used in the great iron mining industry present a variety of problems when repair or maintenance is necessary. For this work the accurately controlled action of Rodgers Hydraulic Forcing Presses is a real time and work saver.

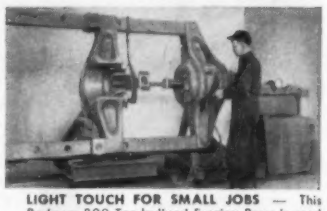
A Rodgers Forcing Press puts a mountain of power at your fingertips to force wheels, sprockets or gears from their shafts and for straightening, assembling, swedging or upsetting jobs.

you get both with RODGERS FORCING PRESSES

Operators also use the versatility, speed, power and positive control of a Rodgers Forcing Press to efficiently perform small pressing and forcing jobs with just a touch of pressure—tasks once done only on vertical shop presses!

Rodgers vertical, horizontal and inclined forcing presses offer capacities from 100 to 600 tons . . . and many more features that assure you of dependable, long life operation—all fully described in Rodgers Catalog Number 315A.

Write for it today!



LIGHT TOUCH FOR SMALL JOBS — This Rodgers 300-Ton Inclined Forcing Press is used on small as well as large equipment repairs. Here, a pin is being pressed out of a tractor idler support bracket.

Rodgers Hydraulic Inc. 7425 Walker Street Minneapolis 26, Minnesota

Designers . . . Manufacturers of:
UP ACTING PLATEN PRESSES • EMBOSSING PRESSES • SHOP PRESSES
DOWN ACTING PLATEN PRESSES • C FRAME PRESSES • HYDRAULIC JACKING UNITS

▲ For more details circle NED-891 H7 on enclosed inquiry slip ▲

ROTH molds SILICONE PARTS and SPONGE

If you need parts that require an extreme temperature range, −100°F to +500°F, a high resistance to compression set and an exceptional resistance to oxidation, then Silicone is the answer. Let Roth's 34 years of experience help you solve your problems.

Send for specifications
ROTH RUBBER COMPANY
1860 South 54th Avenue • Chicago 50, Illinois

▲ For more details circle NED-892 H7 on enclosed inquiry slip ▲

New Processes & Materials

METAL REPAIR KIT for tanks, pipes, pumps, valves

On-the-spot repairs of tanks, pipes, pumps, valves and other types of machinery can be made with an emergency repair kit containing Plastic Steel, a combination of 80 per cent steel and 20 per cent plastic. Material can be formed into any shape and will not run or sag when applied to vertical surfaces. It hardens in 2 hr with addition of a supplied hardening agent, or in 1 minute with application of heat. Product does not shrink or expand and will harden under water. Glass tape "bandage" is used with material if large holes or corroded areas are present. Laminations have compression strength of over 50,000 psi. Price of kit is $3.25. Made by **Devcon Corp.**, 140 Endicott St., Danvers, Mass.

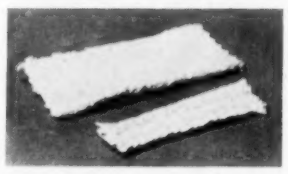
▲ For more details circle NED-894 H7 on enclosed inquiry slip ▲

COLD SOLVENT CLEANER cleans metal at room temperature

Rapid, effective cleaning of ferrous and nonferrous metal parts at room temperature is possible with Mighty-Mulse 563 cold solvent emulsion cleaner. It will remove lubricating oil, grease, buffing compounds and general soil. Oils and greases dissolve easily and are emulsified when rinsed in water. Harmless to nose, throat or hands, it has a pleasant odor. Made by **Octagon Process, Inc.**, 28 Bank St., Staten Island 1, N. Y.

▲ For more details circle NED-895 H7 on enclosed inquiry slip ▲

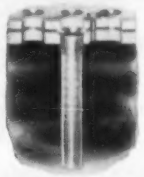
INSULATING FABRICS for temperatures to 1500° F



Two types of insulating fabrics for service up to 1500° F are made of Fiberfrax ceramic fiber in various widths or thicknesses. They are also supplied as instrumentation tapes for both insulation and leak detection, and consist of two stranded Chromel wires covered with reinforced ceramic fiber. Tape can be wrapped around pipes as small as ½-in. OD which carry metallic or radioactive fluids. It will both insulate and cause an alarm-sounding short circuit in event of a leak. Fabrics can be treated with silicone rubbers, epoxy resins or can be impregnated with phenolic resin and molded into shapes. They can also be woven into tubular form. Made by **Russell Mfg. Co.**, 319 E. Main St., Middletown, Conn.

▲ For more details circle NED-896 H7 on enclosed inquiry slip ▲

Micro-Inch



Yes — Delpark Filter-Matic

TUBULAR SCREEN VACUUM FILTER

5-1000 G.P.M. Flow Rates

The Filter-Matic gives filtration for super-finish grinding requirements with automatic, permanent element filtration.

Keeps coolant clean, free of contaminants . . . coolant temperature is lowered. Extends grinding wheel life, permits free-cutting action.

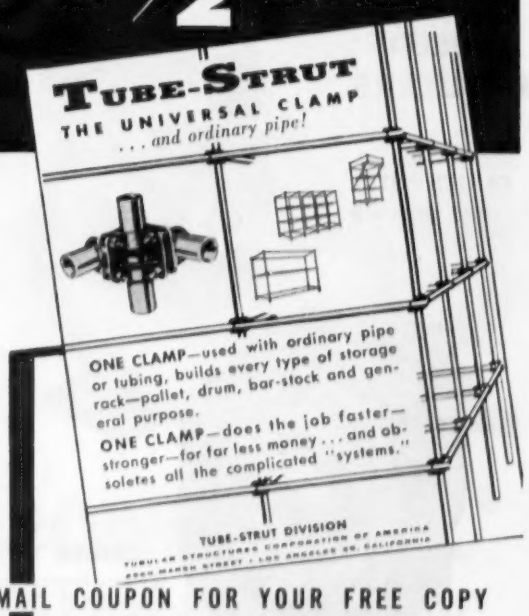
Write for more complete information on this newest concept in filtration.

Delpark —First in Filtration Advancement

INDUSTRIAL FILTRATION COMPANY
14 INDUSTRIAL AVE. LEBANON, INDIANA

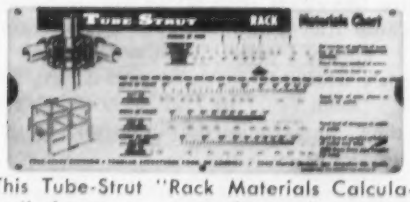
▲ For more details circle NED-897 H7 on enclosed inquiry slip ▲

CUT YOUR COST OF STORAGE RACKS IN ½ WITH..



MAIL COUPON FOR YOUR FREE COPY

Tube-Strut is a single, patented coupling Its simple principle, used with common pipe or tubing—gives you the storage racks you want—FAST, with the greatest strength and versatility . . . AT A LOW, LOW COST! 100% ADJUSTABLE—100% RE-USABLE NO THREADING—NO WELDING



This Tube-Strut "Rack Materials Calculator" shows you at a glance—how many feet of pipe and the exact number of Tube-Strut clamps required for any storage rack installation.

MAIL COUPON FOR YOUR FREE CALCULATOR

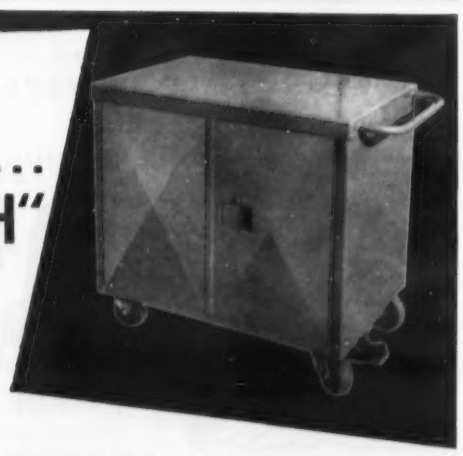
TUBE-STRUT DIVISION, COM. RACK DIV.
TUBULAR STRUCTURES CORP. OF AMERICA
2960 MARSH STREET, LOS ANGELES 39, CALIF.

Please Send Me a Tube-Strut Calculator ☐ Brochure ☐
Name _____
Company _____ Position _____
Street _____
City _____ State _____

▲ For more details circle NED-898 H7 on enclosed inquiry slip ▲

Now . . . a workbench where and when you want it! . . .
THE NEW MOBILE "ROLL-A-BENCH"

7356-OK



A maintenance department on wheels! Here's a mobile workbench that can be rolled to work location by one man . . . with compartments for tools and spare parts . . . with doors that can be locked.

The ROLL-A-BENCH . . . all-welded 1/8-inch and 3/16-inch steel plate constructed . . . is capable of supporting up to 2000 pounds safely. Heavy-duty roller bearing wheels (hard rubber or phenolic resin) are furnished. A foot-operated locking mechanism securely positions the work-bench assuring stable working surface. Vise optional.

Write today for literature and prices or . . . CALL MOntrose 2-4242.

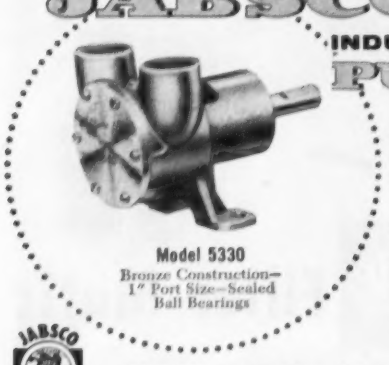
the Overbeke-Kain company

THE OVERBEKE-KAIN COMPANY
20979 Aurora Road • Bedford, Ohio

▲ For more details circle NED-893 H7 on enclosed inquiry slip ▲

cut pumping costs with

JABSCO INDUSTRIAL PUMPS



Model 5330
Bronze Construction—1" Port Size—Sealed Ball Bearings

- INSTANTLY SELF-PRIMING
- SIMPLE, COMPACT, ONLY ONE MOVING PART
- DURABLE NEOPRENE IMPELLER
- SELF-LUBRICATED
- TROUBLE-FREE OPERATION

HERE'S another Jabsco industrial pump – designed and built for chemical, pharmaceutical and other industrial applications. Ideal for transfer of various liquids and acids – sump drainage, coolant pumping, general transfer, pulp in solution, filtering, brines, plating solutions – even fluids containing foreign matter or particles, silt, crystals, and other gritty materials. Bronze, stainless steel or plastic construction is available to *solve your specific* pumping problems. Pumps either light or heavy viscous liquids. Temperature ranges from 35° to 180° F. Write for a Jabsco factory recommendation for your own needs. Specify application, fluid pumped, temperature, pressure, etc.

FREE – send for catalog sheets, detailed information... no obligation, of course!

PATENTED AND PATENTS PENDING

JABSCO PUMP COMPANY
2031 Lincoln Street, Burbank, California

For more details circle NED-899 H7 on enclosed inquiry slip

NEW...from WINSMITH SPEED REDUCERS

SHAFT MOUNTED WORM GEAR SPEED REDUCERS

SERIES "ST" Torque Arm Type

SERIES "SF" Flange Mounted Type

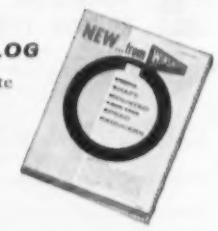
● Now you can specify Winsmith performance, dependability and economy for applications requiring a shaft mounted speed reducer.

The new Winsmith "ST" and "SF" series require less space than conventional models because they eliminate the need for couplings and bed plates. Both series are currently available in three sizes . . . in ratios from 7½:1 to 77:1 . . . horsepower from .63 to 8.82 . . . maximum output torque range from 816 to 7678 in. lbs.

These new shaft mounted models also embody all the advanced engineering and construction features that make Winsmith Speed Reducers first choice for any application from 1/100 to 85 h.p.

WRITE . . . FOR NEW CATALOG

For all the facts and complete technical data on Winsmith Shaft Mounted, Worm Gear Speed Reducers, write today — on your company letterhead, please — for Catalog No. SM-57.



WINSMITH, INC.
119 Eaton Street, Springville, (Erie County), N. Y.

For more details circle NED-900 H7 on enclosed inquiry slip

New Literature & Catalogs

Industrial Equipment by Mail

Thousands of new and surplus industrial products are presented in 396-page 7th annual edition of the Palley catalog. Descriptions and prices are given for such items as hydraulic cylinders, valves, motors and replacement parts; industrial hand and power tools; hardware; office and shop equipment; and even sporting goods and consumer items. Catalog is obtainable only by writing on your business letterhead to Palley Supply Co., Dept. NED-00, 2263 E. Vernon Ave., Los Angeles 58, Calif.

For more details circle NED-901 H7 on enclosed inquiry slip

Sheet Metal Roller Leveler

F. A. Woehr Machine Co.—Steel, aluminum, brass and copper in widths up to 60 in. and gages from 0.010 to 0.125-in. are flattened by the F, J and G model roller levelers described in 4-page bulletin 1957. Specifications of each model are given.

For more details circle NED-902 H7 on enclosed inquiry slip

Caps & Plugs

Shurclose Seal Co.—Specifications for both rubber and plastic closures for protection, sealing or masking of threaded parts, pipe ends or tubing are contained in 4-page illustrated catalog 57-4. Seven stocked styles of plugs and caps in various sizes are covered.

For more details circle NED-903 H7 on enclosed inquiry slip

Cable, Cord & Hose Reels

Gleason Reel Corp.—Three basic types of steel reels for stretching, lifting and retrieving of cable, cord and hose are described and illustrated in 32-page catalog C-1. Details, including application data and capacity tables, for spring, motor driven and hand reels of various types and sizes are in contents.

For more details circle NED-904 H7 on enclosed inquiry slip

Control Centers

Square D Co.—Various types of control centers and their enclosures, features including three available NEMA wiring styles, and application data are included in 16-page illustrated "Control Center Manual." Simplified selector for control center layout is included, along with data on how to write features into specifications.

For more details circle NED-905 H7 on enclosed inquiry slip

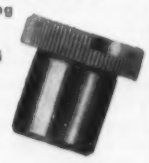
Heating, Ventilating & Air Conditioning

Enlarged technical data section of over 1250 pages is feature of "Heating, Ventilating and Air Conditioning Guide 1957." Reference material of 337 manufacturers is also included. Text covers results of several projects and includes up-to-date information on heat transmission coefficients of building materials and control of the industrial environment. Much information is in table form. Price is $12. Available from American Society of Heating & Air-Conditioning Engineers, 62 Worth St., New York 13, N. Y.

For more details circle NED-906 H7 on enclosed inquiry slip

WHAT... NO UNIVERSAL DRILL BUSHINGS?

Wherever there are holes to drill using jigs or fixtures, it pays to specify Universal drill bushings. Machined from finest quality steel, Universal bushings have super-finished bores which lengthen tool life and reduce bushing wear over long production runs. Knurled heads provide quick, sure grip. Blended radii on top-inside diameters help prevent tool hang-up and breakage. Standard sizes and lengths in stock for immediate delivery.

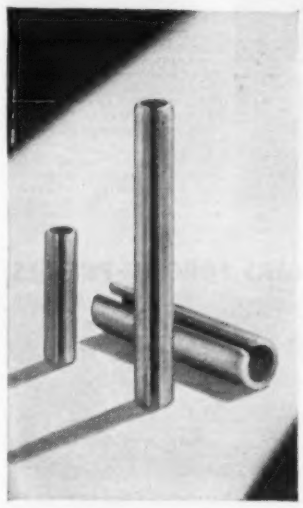


UNIVERSAL ENGINEERING CO.
FRANKENMUTH 5, MICHIGAN

200

For more details circle NED-907 H7 on enclosed inquiry slip

SEL-LOK spring pins eliminate tapping, peening, milling



SEL-LOK spring pins are installed in plain drilled holes in one simple driving operation. They lock by spring action. Use them as axles, keys, hinge pins, cotter pins, pivot or stop pins. A SEL-LOK stays put, once you've installed it. It resists vibration and shock. It can be removed easily with a drift pin or punch, and reused again and again. These versatile pins are stocked by your authorized industrial distributor in sizes ranging from 1/16 by 3/16 to ½ by 5 in., in heat treated alloy or corrosion resistant steel. Write us for Bulletin 2014 and samples. Sel-Lok Spring Pin Division, STANDARD PRESSED STEEL Co., Jenkintown 24, Pa.

STANDARD PRESSED STEEL CO.
SEL-LOK SPRING PIN DIVISION SPS JENKINTOWN PENNSYLVANIA

For more details circle NED-908 H7 on enclosed inquiry slip

IMS PURE SILICONE RUBBER MOLD LUBE

The IDEAL SILICONE MOLD PARTING AGENT for All Quality Rubber Goods

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PRICES (Delivered)
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The economical method of applying costly silicone to quality rubber molds. Reduces rejects!

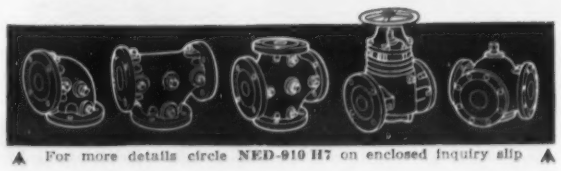
INJECTION MOLDERS SUPPLY CO.
3514 LEE ROAD • WYoming 1-1424 • CLEVELAND 20, OHIO

For more details circle NED-909 H7 on enclosed inquiry slip

H&B JACKETED PIPE and FITTINGS

● The above cutaway illustrates H & B standard jacketed welded pipe and fitting construction, designed to allow complete jacketing of the product pipe. Special jigs and fixtures enable H & B to insure complete uniformity of the jacket area in relation to the O D of the product line and the I D of the jacket pipe. All H & B jacketed equipment is hydrostatically tested at 450 to 500 p.s.i. H & B welded steel jacketed fittings are ideally suited for process piping of pressures reaching 300 p.s.i. and temperatures up to 750°F. . . . A few of these fittings and valves are illustrated below. For more information send for bulletin J-57.

HETHERINGTON & BERNER INC.
719 Kentucky Ave. Indianapolis 7, Ind.



For more details circle NED-910 H7 on enclosed inquiry slip

from Drafting Room to Assembly Line,

MODEL 6F-3

Cramer

HI-MODEL CHAIRS SPUR PRODUCTION

through *proper seating*

Workers who sit comfortably alert show better production records than those who are constantly fighting fatigue. This proved fact explains why Cramer chairs are so widely used; they PAY OFF in increased production. Scientifically-designed Cramer chairs provide easy, correct posture support for every seated worker; they are quickly adjustable to individual needs and are engineered to such rigid quality requirements that replacement problems become a thing of the past.

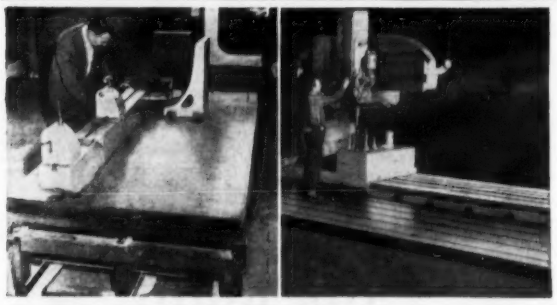
MODEL 4D-22-T

Pictured, fixed-ring factory chair and tilt-seat draftsman's chair with adjustable footring; many other models available.

Investigate! **CRAMER POSTURE CHAIR CO., INC.**

Dept. NE-87 1205 Charlotte, Kansas City 6, Mo.

For more details circle NED-911 H7 on enclosed inquiry slip



Quality Control Starts Here

. . . and from Lake Shore you have the opportunity to select from a complete line of standard plates and stands, or submit your specifications for plates engineered to your exact requirements.

Lake Shore plates are standard equipment in auto manufacturers' testing and development centers. Their highly accurate surfaces—either planer finish, machine ground or hand scraped—offer a "true reference" for precision work. Only flaw-free Lakenite iron is used to insure lasting reliability.

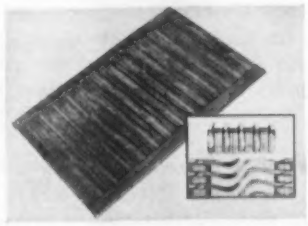
Send for a copy of our base plate booklet which illustrates the complete line of Lake Shore bases, plates and stands.

Lake Shore, Inc.
Engineering Division
IRON MOUNTAIN 6, MICHIGAN

For more details circle NED-912 H7 on enclosed inquiry slip

New Processes & Materials

SCREENING MATERIAL
traps sliver-type contaminants



Dewatering, screening, washing, extracting, filtering or sizing applications in the mining, oil, chemical, food, abrasive and other industries are handled by this S-Screen. It is especially suited for applications involving removal of flats or slivers. An S-bend in the wire reduces the normally long slot. It is durable, nonblinding and nonclogging. Openings range from 1-mm upward. Screen can be made of steel, stainless steel, bronze, Monel, copper, nickel, aluminum or silicon bronze. Made by **Wedge-Wire Corp.**, Dept. M, Wellington, O.

For more details circle NED-914 H7 on enclosed inquiry slip

PACKAGING ADHESIVE
joins paper to polyethylene

Made from a flexible polymer that will not crystallize, No. 3679-H Polygriptex packaging adhesive makes possible the joining of paper and chip or kraft board to polyethylene. It has good shock resistance and good aging qualities, and can also be used to adhere labels to polyethylene squeeze bottles and containers. Adhesive is easily applied by various gluing machines at rates up to 20,000 pieces per hour. Made by **Adhesive Products Corp.**, 1662 Boone Ave., Bronx, N. Y.

For more details circle NED-915 H7 on enclosed inquiry slip

PLASTIC COVER
protects material stored outdoors

Practical solution to the problem of outdoor storage of materials and equipment is provided by this polyethylene Polycov'r. A large tent can be quickly formed on the storage site with the black waterproof, 0.006-in. thick material which is supplied as a 40-ft diameter sleeve or cylinder and tied at the top to form a closure. Tent shown was formed from an 18-ft length of material weighing only 20 lb and protects a 24,000-lb truckload of plastic molding powder stored outdoors on skids. Polycov'r is shipped in 100-ft rolls which yard crews can cut into desired lengths to meet any storage need. It can also be provided in precut lengths to order. Made by **Gering Products, Inc.**, Kenilworth, N. J.

For more details circle NED-916 H7 on enclosed inquiry slip

AN ORDERLY SYSTEM
FOR FILING · STORING · SEGREGATING

TRACINGS BLUE PRINTS SHEET MATERIAL

FILE CONSTRUCTED IN 200-lbs-Test CORRUGATED CONTAINER

25 TUBE Model 2½" I.D.			2530	2536	2542
49 TUBE Model 1¾" I. D.	49AB	49CD	4939	4936	4942
DEPTH	11¼"	22¼"	30½"	36½"	42¼"
PRICE	$6.25	$8.35	$10.85	$11.95	$12.85
	SHIPPING WEIGHT				
MOD. 25	——	——	13 lbs.	15 lbs.	17 lbs.
MOD. 49	8 lbs.	12 lbs.	15 lbs.	18 lbs.	20 lbs.

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DESIGNED TO MOUNT UNDER BOARD-MOUNTING BRACKETS FURNISHED. GRAY ONLY

7.95 SET of TWO

8 lbs. Ship. Wt.

SOLD IN SETS ONLY — 2 JR36 PER SET

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For more details circle NED-917 H7 on enclosed inquiry slip

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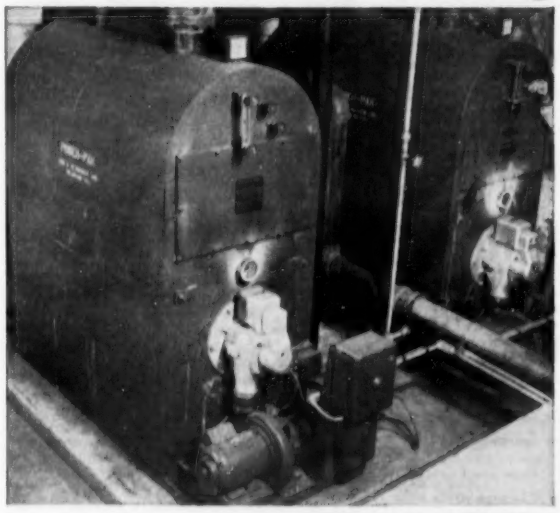

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Packaged Automatic Boiler

Ideal for apartments • office buildings • churches • schools • markets • stores • motels • camps • clubs • restaurants • bakeries • garages • service stations • greenhouses • launderettes • warehouses • industrial plants • other low-pressure steam or hot-water heating needs

Available From Stock NOW!

3 SIZES: 15, 20, 25 HP WITH OIL, GAS OR COMBINATION BURNERS
APPROVED BY UNDERWRITERS' LABORATORIES, INC.

MONEY-SAVING ADVANTAGES

- completely factory-assembled
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- factory fire-tested
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- industrially-rugged burner
- 5 sq ft of heating surface per hp
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- one-source responsibility for entire unit
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Get full information now. Send for Bulletin 1233.

ORR & SEMBOWER, INC.
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Builders of Dependable Boilers Since 1885

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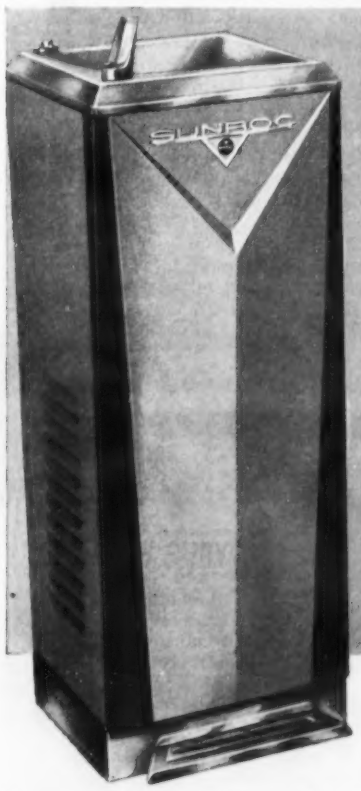

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MOST MODERN OF OFFICE & PLANT COOLERS —YET PRICED THE SAME!

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ELECTRIC LANTERNS and SAFETY CANS

VALUABLE DATA:
The world's first comprehensive table of lamp and battery operating information
High power searchlights
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JUSTRITE Mfg. Co.
2061 N. Southport, Chicago, Ill.

CATALOG NUMBER 569-E-8

For more details circle NED-926 H7 on enclosed inquiry slip

Denison Variable Volume AXIAL PISTON PUMP with Handwheel Control

STANDARD OF DEPENDABILITY
for 5000 psi continuous service

DENISON AXIAL PISTON PUMPS

There's good reason why all industry depends on Denison for smooth, uninterrupted performance of high pressure hydraulic systems. Only in Denison's axial piston line do you find a true 5000 psi pump that:

- combines high pressure and high volume output
- operates on oils in a low viscosity range and under extreme temperature conditions
- is hydraulically balanced throughout for long trouble-free operation
- has unique shaft design that compensates for external load or slight misalignment of coupling
- operates quietly at all pressures
- is compact in size . . . has fewer parts

VARIABLE VOLUME OR CONSTANT VOLUME

Variable volume pump available with 5 different controls . . . handwheel control, pressure compensating control, servo control, stem control or cylinder control. Sizes . . . 10, 20 and 35 gpm. Three mountings . . . face, flange and foot. Specifications on Denison axial piston pumps are given in Bulletin P-4. Write

THE DENISON ENGINEERING COMPANY
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DENISON HydrOIL ics
HYDRAULIC PRESSES • PUMPS • MOTORS • CONTROLS

For more details circle NED-927 H7 on enclosed inquiry slip

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Here's what it contains:

- Tells why carbides of the same grade perform differently under identical machining conditions
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. . . all this and more in an eight page bulletin that originally appeared as a technical article in Carbide Engineering. Send for your copy today.

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Buttermilk Hollow Road, McKeesport, Pennsylvania
"Carbide Makers—Not Fabricators"

For more details circle NED-928 H7 on enclosed inquiry slip

New Literature & Catalogs

Plastic Pipe & Fittings

Crane Co.—Latest technical information on pressure-rated plastic pipe and fittings presented in 8-page booklet AD-2205 includes pressure drop tables, pressure-temperature ratings and recommended pumping depths. Figures are given on three grades of polyethylene pipe: standard wall, 75-lb and 100-lb.

For more details circle NED-929 H7 on enclosed inquiry slip

High Frequency Variable Transformers

Superior Electric Co.—Powerstat variable transformers for aircraft, marine and industrial use are designed for delivering a continuously adjustable voltage from 400/800-cycle ac power lines. Information on 35 types of miniaturized manual and motor driven transformers for 28 to 480-v service is given in bulletin P257H.

For more details circle NED-930 H7 on enclosed inquiry slip

Bulk Handling & Storage

Day Sales Co.—Details of complete line of equipment for storing and handling bulk materials are presented in 12-page bulletin 574. Specifications are given on vertical and horizontal tanks, pneumatic conveyors and bulk handling accessories.

For more details circle NED-931 H7 on enclosed inquiry slip

Electric Connectors & Components

Burndy Corp.—8-page booklet "What Goes On Here?" describes products made by the Omaton Division. Data are given on connectors, splices, panels and components for original equipment, electronic, appliance, aircraft and military markets.

For more details circle NED-932 H7 on enclosed inquiry slip

Industrial Wheels

R & K Industrial Products Co.—Loadmaster wheels with DuPont neoprene tires for severe industrial service as well as a complete line of aluminum, balloon-cushioned, pressed steel and Micarta wheels are described in illustrated catalog. Uses and specifications of various types of bearings, seals and rubber compounds are tabulated.

For more details circle NED-933 H7 on enclosed inquiry slip

Pneumatic Control Instruments

Bristol Co.—44-page illustrated bulletin A130 is guide to the theory, operation and use of pneumatic control instruments. Such concepts as narrow band, proportional, reset, derivative, and reset plus derivative control actions are explained. Also covered are selective, cascade and ratio control. Described are series 500 pneumatic recording and indicating controllers, as are sensing elements for such variables as temperature, pressure, humidity, flow and level.

For more details circle NED-934 H7 on enclosed inquiry slip

The Care of Broaching Tools

Lapointe Machine Tool Co.—"How to Care for Broaching Tools" is title of 24-page guide to the proper handling, storage and use of multiple-tooth cutting tools. Pictures and cartoons emphasize the do's and don'ts of handling these expensive tools.

For more details circle NED-935 H7 on enclosed inquiry slip

Step Blocks, Clamps & Stud Sets

Northwestern Tool & Engineering Co.—Brief information on line of step clamps, step blocks, plain clamps, block and clamp sets, T-nut and stud sets, step block sets, punch press sets, flanged and T-nuts and cut thread studs is contained in 4-page catalog 25-A. Prices are given.

For more details circle NED-936 H7 on enclosed inquiry slip

Molybdenum Disulfide Lubricants

Alpha Molykote Corp.—"Breaking Lubrication Barriers," a 16-page illustrated brochure presents history and development of Molykote line of molybdenum disulfide lubricants. Selection table, illustrations of uses and section on bonded solid film lubricating coatings are included, along with physical and chemical properties.

For more details circle NED-937 H7 on enclosed inquiry slip

Air Velocity Meter

Illinois Testing Laboratories, Inc.—Alnor Velometer is a portable instrument that gives quick and accurate readings of both suction and supply air velocities. Described in illustrated bulletin 2448, it provides accurate readings from 20 to 24,000 fpm. Accessories are covered and prices included.

For more details circle NED-938 H7 on enclosed inquiry slip

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THOMSON BALL BUSHINGS

The BALL Bearing for all your LINEAR MOTIONS

LOW FRICTION • ZERO SHAKE OR PLAY
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Also manufacturers of NYLINED Bearings . . . Sleeve Bearings of DuPont NYLON

For more details circle NED-939 H7 on enclosed inquiry slip

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of manual B-6397-A is waiting. Write Westinghouse Electric Corporation, 3 Gateway Center, P. O. Box 868, Pittsburgh 30, Pa.

For more details circle NED-940 H7 on enclosed inquiry slip

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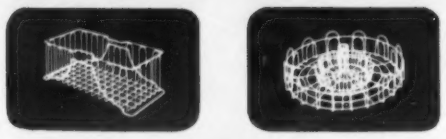

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We quote from your blueprints by return mail.
Your inquiry is invited.

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For more details circle NED-941 H7 on enclosed inquiry slip

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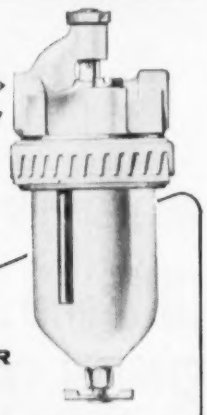

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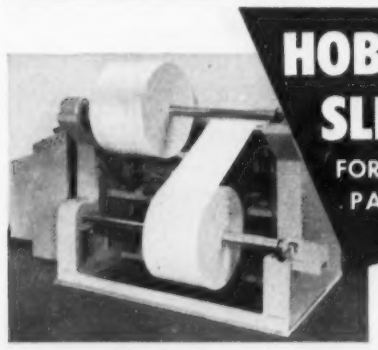
Efficient because:

1. **Sub-miniature, high velocity venturi section** positively creates sufficient pressure — even at flow rates as low at one cubic foot per minute — to vaporize oil into a fine mist for uniform, economical lubrication.
2. **Exclusive by-pass pick-up** delivers remainder of air to venturi outlet, thus eliminating the excessive pressure drop associated with other high velocity venturi sections.

Write for complete information on the WATTS LINE of filters, regulators and lubricators with exclusive features for more efficient air supply to pneumatic equipment.

WATTS REGULATOR COMPANY
SINCE 1875
29 EMBANKMENT ROAD · LAWRENCE, MASSACHUSETTS

For more details circle NED-942 H7 on enclosed inquiry slip



HOBBS 60" SLITTER FOR PLASTICS, PAPER, ETC.

Polaroid Corporation, WALTHAM, MASS.
One of Many Prominent Users

Polaroid Corporation of Waltham, Mass. is one of many prominent companies which have found the new Hobbs 60" Slitter and Rewinder ideal for converting. Adaptations of the Hobbs Slitter can be made for converting delicate film, heavy, tough plastics, paper or other similar materials.

This machine is available in 40", 50" and 60" sizes as well as 72" and with single or double shaft windup. Controls for starting, stopping, tension adjustment and speed variations are within easy reach of the operator. Other features include shear type cutters, automatic web guide, static eliminator and blower type trim remover with receptacle.

HOBBS MANUFACTURING CO.
EST. 1883 41-H Salisbury St., Worcester 5, Mass.

Representatives in Irvington, N. J.; Chicago, Ill.; Cleveland, Ohio; Greenville, S. C.; Toronto, Ont.

WINDERS • HAND & POWER SHEARS • SLITTERS • DIE PRESSES • CORNER CUTTERS

For more details circle NED-943 H7 on enclosed inquiry slip

New Processes & Materials

SILICONE INSULATING RESINS pour freely without solvents

Two insulating resins are 100 per cent silicone materials, pour freely without solvents, and cure to form void-free high temperature impregnations or encapsulations for electric or electronic equipment. Identified as R-7501 and R-7521, the two resins have room temperature viscosities of 2500 and 100 centistokes, respectively. Either can be thinned by warming to 175° F before application, and both can be blended in any ratio to achieve any intermediate viscosity. Full curing is with a peroxide catalyst and a step cure of 9 hours at up to 390° F. Either may be used as a potting compound alone, or with any of a number of inorganic fillers. Made by **Dow Corning Corp.**, Dept. IS, Box 592, Midland, Mich.

For more details circle NED-944 H7 on enclosed inquiry slip

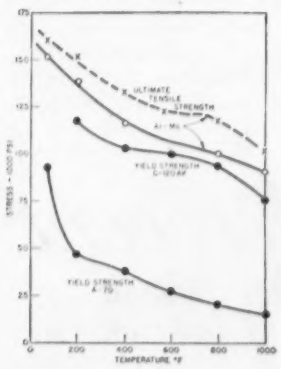
PACKAGING PAPERS include a moldproof type

Four newly developed papers provide individual qualities practical to the packaging industry. Never-Mold papers, intended for long-term storage of parts and equipment, permanently resist biological or mold deterioration despite humidity, rain, sunlight, soil burial and other extreme conditions. Scrimtex paper features a reinforcing scrim or mesh of either glass fiber or rayon. This gives paper high puncture resistance for use as mail sacks, shrouds, tarpaulins, temporary barriers, tents, awnings and other outdoor uses. Chemically inert Seven-O paper has no corrosive effect on ferrous and nonferrous metals, even after long contact, and finds use in packaging aircraft and automotive parts, or products being shipped overseas. This paper meets MIL-P-17667 and MIL-P-116C. Hydensel, a high density paper to replace glassine and greaseproof papers, is suitable as a liner in packaging of foods, or as a release sheet for wax, rosin, etc. Made by **Mosinee Paper Mills Co.**, Dept. NED, Mosinee, Wis.

For more details circle NED-945 H7 on enclosed inquiry slip

TITANIUM ALLOY graph shows strength properties

Titanium bar and forging alloy has high strength at room and elevated temperatures, making it suitable for jet engine disks and blades, lightweight airframe forgings and airframe fasteners. The C-130AMo alloy contains 6½ per cent aluminum and 3¾ per cent molybdenum. It has good time-temperature-stress stability, deep hardenability and good heat treated properties. Samples exposed to high stress in 600-1000° F range show undiminished strength and good ductility in subsequent room temperature tensile tests. Tensile strengths over 160,000 psi with good ductility in heat treated sections over 2 in. thick have been obtained in laboratory tests. Alloy is available for experimentation from **Rem-Cru Titanium, Inc.**, Railroad Ave., Midland, Pa.



For more details circle NED-946 H7 on enclosed inquiry slip

LATEX COATING protects masonry and plaster

Water based No. 88 polyvinyl chloride resin latex coating protects plaster and masonry by sealing it against water vapor penetration. It also resists acids, alkalies, abrasion, steam, mildew, weather and many chemicals. Nonabsorbent and stain resistant, it provides a semigloss finish for indoor or outdoor concrete, brick, stucco, plaster, fabric and previously painted surfaces. Coating is odorless, tasteless, nontoxic, nonflammable and unharmed by repeated scrubbing with detergents. It air dries in 2 to 4 hours and is offered in 12 pastel colors. Made by **Amercoat Corp.**, Dept. ND, 4809 Firestone Blvd., South Gate, Calif.

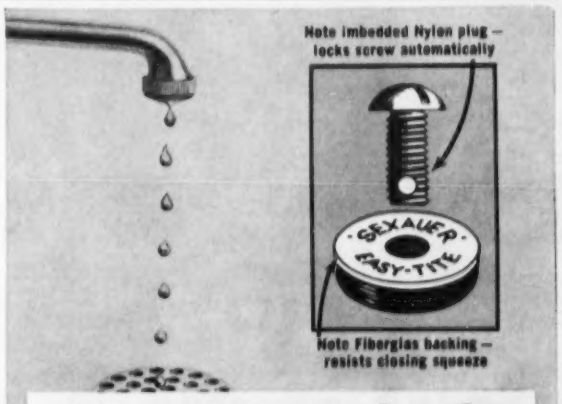
For more details circle NED-947 H7 on enclosed inquiry slip

2,420,755 POUNDS OF SPEED PATCH
Purchased by One Major Corporation

Send For Details

ROCK-TRED Corporation
Manufacturers of a Complete Line of Building Maintenance Materials
7440-7450 North St. Louis Avenue • Skokie, Illinois

For more details circle NED-948 H7 on enclosed inquiry slip



Why Faucets Leak

—9 out of 10 washers are fastened with TOO LONG or SHORT —screws. The screws QUICKLY LOOSEN, thus loose washers —are destroyed thru grind and squeeze of opening and —closing faucets.

34 years of research uncovers new solution

—Now, NEW (Patented) 'Sexauer' SELF-LOCK Monel screws, —with an imbedded expanding NYLON PLUG, lock at the —required depth AUTOMATICALLY—hold washers FIRMLY!

—Made of rustproof, non-corroding MONEL, heads don't —twist off or screw slots distort. They are easy to remove —when necessary, can be used over and over.

—Used with NEW 'Sexauer' EASY-TITE faucet washers, this —combination outlasts past faucet repairs "6 to 1"! EASY-—TITES are made of super-tough, pliable du Pont compound —(neither rubber nor fiber) and reinforced, like a tire, with —a vulcanized layer of Fiberglas, they resist distortion and —splitting from shut-off grind and squeeze.

The hidden costs of faucet leaks!

Faucet leaks are costly! As authenticated by Hackensack, N. J. Water Co. and American Gas Association, STOPPING just ONE PIN-HOLE SIZE (1/32") LEAK can reduce water waste 8,000 gal. quarterly. If a HOT WATER FAUCET LEAK, water and fuel savings JUMP to over $7.58 QUARTERLY—plus additional savings on MATERIALS—LABOR—and *costly* FIXTURE REPLACEMENTS!

NEW SELF-LOCK screws and EASY-TITE faucet washers are just TWO of the "SEXAUER" line of over 3000 TRIPLE-WEAR plumbing repair parts and Pat'd. precision tools.

A "SEXAUER" Technician in your vicinity will make our NEW 126 page Catalog "H" available. He will gladly consult with you regarding a SURVEY of your plumbing fixtures to determine correct repair parts required and establish reasonable stock levels that avoid both overstocking and shortages—thus providing for efficient stock arrangement and control—all without obligation. WRITE TODAY!

J. A. Sexauer Mfg. Co., Inc. Dept. AU-87
2503-05 Third Ave., New York 51, N. Y.

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WORLD'S LEADING SPECIALISTS IN PLUMBING AND HEATING REPAIR PARTS

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Glaze with Shatterproof FILON Fiberglas Panes

Ideal for glazing factory and shop windows, skylights and sidelights. Shatterproof FILON flat panes are pre-cut in all sash sizes, install like ordinary glass. FILON is not affected by plant vibration, fumes, most acids, alkalies or organic solvents. FILON diffuses daylight, washes out glare and shadows, relieves eye strain and fatigue.

Factory Mutual approved and Underwriters' Laboratories labeled.

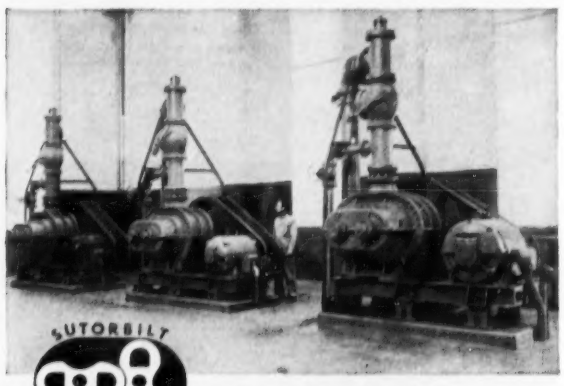
Write today for complete information.

Wonderchild of Building Materials – Fiberglas and Nylon Reinforced Panels

FILON PLASTICS CORP.
El Segundo 37, California.

FILON.

For more details circle NED-950 H7 on enclosed inquiry slip



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BLOWERS • GAS PUMPS • VACUUM PUMPS

Special features, such as heavy duty roller bearings, wide face herringbone gears and the exclusive Sutorbilt timing hub are all designed to assure you trouble-free service and longer operating life. Simplicity of design and rugged construction are further plus values.

Standard units are available in capacities to 20,000 CFM and pressures or vacuums up to and including 10 psig.

Check the yellow pages of your telephone book for nearest representative. S-2A 4264

SUTORBILT CORPORATION
Subsidiary of Fuller Company • Catasauqua, Pa.
5200 E. 60 St. P.O. Box 269 • Maywood, Calif.

For more details circle NED-951 H7 on enclosed inquiry slip

RECIPROCATING SOLENOIDS

R2D-328 SOLENOID OPERATOR

Reciprocating solenoids have the trade name of "RD Solenoid Operators."

DEFINITION

An RD solenoid operator is a reciprocating solenoid unit made up of two solenoids mounted in tandem to actuate a common plunger oscillating between them.

CLASSIFICATION AND DENOMINATION

Class I. Plain RD operators for operation in open air.
Class II. Oil immersed, RDZ operators.
Class III. Explosion proof RDX operators.
Type 1. Two point operators R2D, R2DZ, R2DX.
Type 2. Three point operators R3D, R3DZ, R3DX.
Form A, side mounted, Form B, end mounted.

Operators available: RD-100, RD-300, RDX-300, RD-400, RD-700 and RD-800.

Ask for bulletins on operators, solenoids, solenoid brakes, Reciprocators and Semotors. See our catalogs in Sweet's Catalog Service.

TROMBETTA SOLENOID CORP.
329 N. MILWAUKEE ST.•MILWAUKEE 2, WIS.

For more details circle NED-952 H7 on enclosed inquiry slip

New Literature & Catalogs

Ferrite Magnetic Materials

General Ceramics Corp.—"Ferramics for General Applications up to 200 Megacycles" is an illustrated 8-page bulletin which describes the nature of ferrites, their advantages and limitations. Also included is a comparison of Ferramic bodies and their applications in electrical and electronic industries.

For more details circle NED-953 H7 on enclosed inquiry slip

Diaphragm-Operated Valves

Seely Instrument Co.—Direct-acting, reverse-acting and three-way diaphragm-operated valves are described and their operation illustrated in 4-page bulletin V-8. Specifications, pressure data and selection table are included. They handle pressures up to 250 psi steam.

For more details circle NED-954 H7 on enclosed inquiry slip

Leaded Steel

Copperweld Steel Co., Steel Div.—Information on basic characteristics, mechanical properties and workability of leaded steels are found in 16-page illustrated booklet. Test results are supported by data and charts. Several pages of case histories are also included.

For more details circle NED-955 H7 on enclosed inquiry slip

Lighting Equipment

Steber Mfg. Co.—Sealed beam lamp components, 100 to 1500-w flood lights, high bay lighting units and other lighting equipment and reflectors are briefly described in condensed catalog CTC-2. Prices are given.

For more details circle NED-956 H7 on enclosed inquiry slip

Motors & Drives

Reliance Electric & Engineering Co.—8-page illustrated booklet "The Moving Force of Industry" describes the complete line of alternating and direct current motors, gearmotors, motor-generator sets, motor controls, and packaged mechanical and electronic adjustable speed drives.

For more details circle NED-957 H7 on enclosed inquiry slip

Multiple Outlet Wiring Systems

Wiremold Co.—Five Plugmold multiple outlet wiring systems and their accessories are described and illustrated in 6-page folder. Benefits resulting from use and views of various installations are included. Specifications of each type are given.

For more details circle NED-958 H7 on enclosed inquiry slip

Tools of Many Types

Armstrong Bros. Tool Co.—In the 5000 tools described in 120-page illustrated catalog 57 are about 500 that have not been previously listed. Included are tool holders, cutting tools, machine dogs, C-clamps, eye bolts, machine and crank handles, drop forged and detachable socket wrenches, bridge ratchets and sockets, adjustable wrenches and pipe tools.

For more details circle NED-959 H7 on enclosed inquiry slip

New **Aerovent** type **LS** belted and direct-driven **4-blade** industrial fans

Designed for high-volume air movement against resistances ¾" S.P. Featuring new, wider 4-blade "Macheta" Airfoil propellers, "LS" fans are available in ring, duct or square panel types. Standard construction features mean lower initial costs, with more efficient operation. Aerovent "LS" fans are the practical solution to all standard air-moving problems. Special motors, propellers, coatings available for corrosive conditions.

Write for Bulletin 750-A (Belt-Driven) or 775 (Direct-Driven)

"ls" duct fans

Designed for use in all standard duct systems. More efficient performance at lower speeds, against static pressures to ⅝" S. P. Sizes 24" to 48".

Aerovent FAN CO. INC.
Ash and Blake Sts. Piqua, Ohio

For more details circle NED-960 H7 on enclosed inquiry slip

PROTECT crushers, screens, grinders, all processing machinery from tramp iron damage.

REMOVE contaminating iron particles from materials and products.

PREVENT fires and explosions caused by sparks from tramp iron.

with DINGS PERMA-PULLEYS

Dings *permanent* Alnico Magnetic Pulleys are designed with high surface strength to provide tremendous holding power for large, machine-wrecking pieces of tramp iron. They also assure powerful attraction for pulling fine particles of contaminating iron out of materials on conveyor belts. Separation at full production volume is *positive* and *automatic*.

Dings

Get full details from Bulletin C-1007A.

DINGS MAGNETIC SEPARATOR CO.
4758 W. Electric Ave., Milwaukee 46, Wis.

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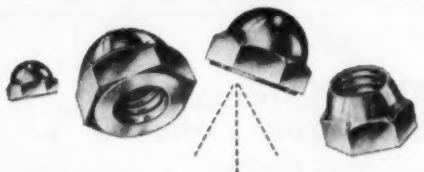
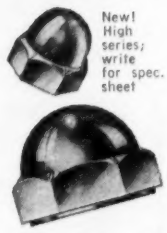


what's your need in CAP NUTS?

GRC offers the greatest stock of standard types and thread sizes

GRC has the world's largest catalog stock—the widest selection of combinations of thread and hex sizes . . . open end or closed end . . . all available for prompt delivery in regular and special high series—provides 50% greater thread depth. And to guarantee **greater economy . . . better appearance**, GRC die casts them in **rustproof, corrosion-resistant**, durable zinc alloy! Result? Cap nuts uniformly free of imperfections! No tool marks . . . no cut-off burrs. A clean, bright finish that can be used "as is" or plated to your order.



New! High series; write for spec. sheet

Ask about GRC's die cast wing nuts, wing screws, cap nuts, thumb nuts, thumb screws, rivets and other fastenings. You'll find them most economical!

Write for prices and bulletins TODAY!

GRIES

GRIES REPRODUCER CORP.
World's Foremost Producer of Small Die Castings
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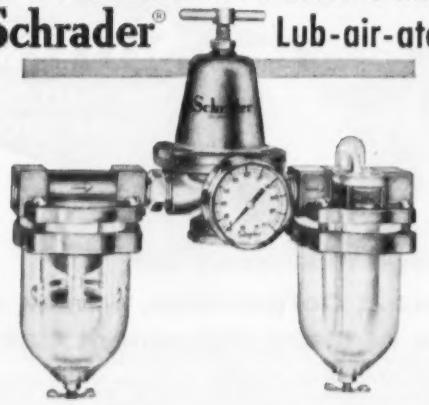
NOW!

FILTER . . . REGULATE . . . LUBRICATE with this Schrader® Lub-air-ator



Now! All in one installation: The Schrader LUB-AIR-ATOR. This new, quality unit is designed to do these three important jobs: **filter** clean the air as it moves through system—**regulate** air to proper pressure requirements—**lubricate** moving parts in the correct amount to minimize wear and friction. End result: Your valuable air tools give longer trouble-free service. You will find full details in the Schrader Catalog. Send for it today.

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
459 Vanderbilt Avenue, Dept. X-9, Brooklyn 38, N. Y.

For more details circle NED-963 H7 on enclosed inquiry slip

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Push-Button Rust Prevention

Protect tools . . . jigs . . . dies . . . machines . . . the easy way. Order a case of RUST VETO spray cans. Prompt delivery. Price, $15.24 per case of twelve 12 oz. cans.

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RUST VETO SPRAY

. . . a product of

E. F. HOUGHTON & CO.
PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO

Ready to give you on-the-job service . . .

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MINIATURE LIGHTING NEEDS

For *Pilot—Dial—Indicating—Illuminant* uses, DRAKE's quick-reference catalog simplifies selection of just the *right* Miniature Lighting unit. 16 picture and fact-packed pages include detailed specifications; plus highly useful data on basic unit elements, best choices for various uses, etc. *Project Data Sheet* makes it easy to get specific recommendations for your job. Decades of specialized experience in all aspects of Miniature Lighting make DRAKE first choice for top results, best quality, greatest economy.

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DRAKE MANUFACTURING COMPANY
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MINIATURE LIGHTING SPECIALISTS

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Eliminate . . . **SEWER-CAUSED WORK STOPPAGES!**

Lowest Upkeep

Write For **FREE** *"On-the-job" Demonstration or Catalog.*

"Flexi-Cleaner" LIGHEST MOST POWERFUL SEWER MACHINE on the Market

• Safe One-Man Operation • Reverses Right or Left • Instant Automatic Chuck and Clutch • 3 Speeds---125, 250 and 500 RPM • Cables 4 Times Stronger Than Any Other

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FRANK DONOVAN COMPANY, 9 S. CLINTON ST., CHICAGO 6, ILLINOIS

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New Processes & Materials

PROTECTIVE SKIN COATING protects from chemicals, irritants

Skin-hugging, continuous, elastic, plasticized film formed by Ply No. 9 Gel affords protection against skin irritation or dermatitis from a wide variety of chemical and mechanical irritants. Its plastic film barrier is impervious to most organic solvents and also resists epoxies, amines, tar, adhesives, oils, lacquer and poison ivy. It is attacked only by acetones and alcohol. Soluble in water, it is not recommended against water-base irritants. This tough mechanical coating is not penetrated by abrasive dusts, glass fibers or fine powders. It can be applied to hands, arms, face or other areas exposed to irritants, and can be removed by washing with or without soap. Made by **Milburn Co.**, Dept. N, 3246 E. Woodbridge St., Detroit 7, Mich.

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FLOOR SURFACING MATERIAL protects concrete from corrosives

Protection against most acids, solvents and caustics over the entire pH range is claimed for Poly-Chem 1100 concrete floor surfacing and patching material. It is easily applied, has high impact strength, permanently bonds under all conditions of operation and weather, and can have a smooth or nonskid finish. Dust-free material withstands heavy traffic and can be feather-edged. Usable in trenches and sumps, it bonds to clean steel, aluminum, wood and most other surfaces without priming. Use can be as a surfacing or patching material, as a grout, and, without aggregate, as a corrosion resisting paint. Made by **Dittbrenner Associates, Inc.**, Dept. W.M.L., 18 Oneida Ave., Rockaway, N. J.

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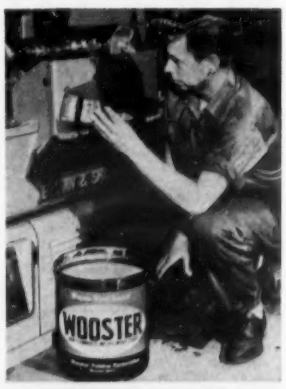
MACHINERY ENAMEL applied without interrupting work



Nonflammable during application and fire resistant when dry, Vinyl Enamel can be applied safely to machinery without interrupting work schedules. Its odor is nontoxic and nonoffensive. It dries to touch in 1 hour and dust-free in 4 hours. Spots and spills can be cleaned up with water. Enamel forms a hard glossy finish that withstands oil, grease, industrial fumes, moisture and mild acids. Applicable with brush, spray or roller, it is available in white, gray, yellow, blue, green, red and black. In addition to its use on metal, it can be applied to cement, cinder block, new or old wood, wallboard, stone and masonry. Made by **Wooster Finishes Corp.**, Dept. NED, Wooster, O.

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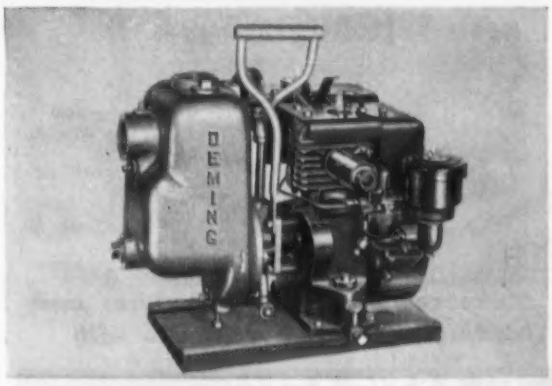
MASONRY CLEANER is harmless to skin and equipment

Easy - to - use Liquid Gold chemical masonry cleaner will not burn the flesh, is safe to use near aluminum structural parts and cannot harm tools or equipment. Shipped in jugs or drums, it is diluted with water for use. A two-to-one mixture will etch masonry surfaces. Solutions from four to eight parts of water to one of Liquid Gold will clean most masonry. Properly diluted, it can also be used to dissolve water scale from pipes and to clean masonry tools of hardened cement or mortar. Available from **Goldblatt Tool Co.**, Dept. AB, 1910 Walnut St., Kansas City 8, Mo.

▲ For more details circle NED-970 H7 on enclosed inquiry slip ▲



Portable Deming Pump Has Many Uses

Self-priming centrifugal pump. Powered by Briggs and Stratton, model "NP", 1½ H.P., 4-cycle, air-cooled engine, high tension magneto. Pump has iron casing. Bronze impeller is mounted on engine shaft. Mechanical seal. Suction 1½-in. Discharge 1½-in. Length 20-in. Width 13-in. Height 19-in. Weight only 83 lbs. Capacities up to 90 g.p.m. Heads up to 80 ft. Call your Deming Distributor or write to:

The DEMING Company
520 BROADWAY • SALEM, OHIO

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SAVE TIME and MONEY

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Beam lengths from 7" to 72" . . . one piece anodized aluminum.

Choice of colors in attractive plastic coursers with metal inserts at all wear points. Nylon coursers now available.

3 sets available, individually priced from $3.25 (15% quantity discount on 3 sets or more).

Sets in attractive boxes with segmented 9¾" long, aluminum or wood beams . . . lock firmly together.

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FERANCE Construction Co.
28 Woodside Drive • Penfield, N. Y.

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RE-application

most uses don't require it, but if you need it 5 times...10 times...15 times, the M•F TWO-WAY LOCK NUT IS YOUR LOW-COST ANSWER!

You owe it to your product and to your production manager to find out about the LOCK NUT THAT DELIVERS: 1. Reapplication. 2. Automated application without selective devices. 3. Locking power without using all threads. 4. *Consistent* torque—no "spins," no "sticks" no line hold-up. 5. LOW COST!

SEND FOR FREE CATALOG. The M•F line includes off-the-shelf-sizes in all semi-finished hexagon nuts, all types of all metal lock nuts, weld nuts and the M•F UNI-TORQUE LOCK NUT. All specifications, torque tests etc., included. Yours for the asking:

MAC LEAN-FOGG *Lock Nut Company*
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NEED SPECIAL TOOLING?

Total working time for this accurate, low-cost, durable drill jig — just 35 minutes.

Make complicated jigs, fixtures and holding devices in MINUTES with

PLASTIC STEEL (R) — A DEVCON PRODUCT — 80% STEEL — 20% PLASTIC

PLASTIC STEEL makes a precision form of the original part . . . without shrinkage or distortion. Handles like modeling clay . . . hardens to strong, tough metallic piece. PLASTIC STEEL can be sawed, tapped or ground with metal-working tools. It has extreme strength, excellent adherence to most materials, won't rust or corrode.

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FREE BOOKLET describes PLASTIC STEEL and other Devcon products — write for a copy today. Distributed by leading Industrial Suppliers.

DEVCON CORPORATION
140 Endicott Street, Danvers, Mass.

For more details circle NED-974 H7 on enclosed inquiry slip

TIME RECORDER + TOTALIZER

automatic, continuous, operating data can be the difference between Profit and Loss!

Modern plant operation demands the most efficient and accurate means of evaluating both machine and man-power production . . . that's why leading companies everywhere are equipping their production lines, processes, systems and office machines with Time Recorder-Totalizers.

The Time Recorder-Totalizer monitors the operation of any machine, process or system by chronologically recording the time and duration of every "on" and "off" period during each day.

The Time Recorder-Totalizer makes it possible to analyze the efficiency and performance of any type of equipment plus simplifying cost accounting.

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SPROCKET DRIVEN CHART . . . accurately timed . . . chronologically printed . . . available in speeds from one inch per hour to ten inches per minute . . . 250 linear feet per roll . . . each $1.25.

ELAPSED TIME METER . . . (Time Totalizer) registers accumulated "on" or production time.

AUTOMATIC REWIND ATTACHMENT with housing . . . facilitates inspection of strip chart during any period throughout the entire roll. (available for all models . . . $7.50 extra)

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standard INSTRUMENT CORPORATION
DIVISION OF HEAT-TIMER CORPORATION

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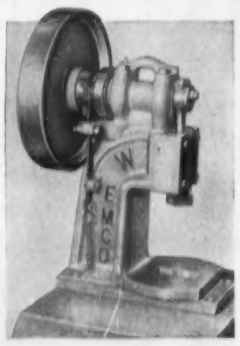

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Versatile EMCO presses excel for punching, forming, stenciling and riveting. Up to 300 operations per minute. "Big machine" speed, strength, rigidity, accuracy, endurance, safety. Compact, fool-proof; simple design — easy to operate. Thousands of EMCOS in money-making use testify to Klaas dependability since 1921. Two practical sizes.

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UNUSUAL AIDS TO INDUSTRY

THE KLAAS MACHINE & MANUFACTURING CO.
4310 East 49th St., Cleveland 25, Ohio

KLAAS-BUILT EMCOS

For more details circle NED-976 H7 on enclosed inquiry slip

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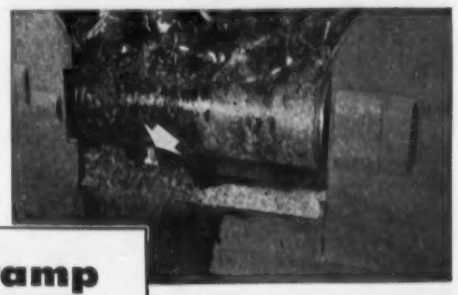

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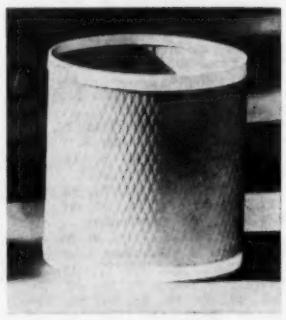

Three - dimensional design embossed on sheets of vulcanized fiber by a dry, cold forming process provides an attractive appearance, strength and insurance against warping. It also makes surface imperfections less noticeable. Fiber can be polished to a high natural finish; decorated with standard paints, varnishes, lacquers or vinyl finishes; or colored during manufacture, if ordered in production quantities. It is easily fabricated, light in weight and has good dielectric strength. Uses include reusable shipping containers, household items (a hamper is shown), machinery and electrical housings. Available thicknesses are 0.005 to 0.020-in. Made by **National Vulcanized Fibre Co.,** Dept. NED, 1057 Beech St., Wilmington 99, Del.

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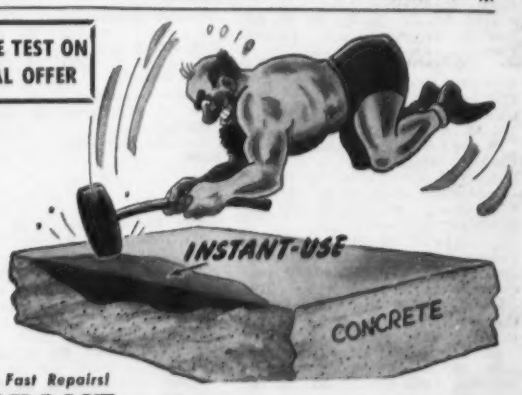

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